Oil, Paint and Drug Reporter

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April 17, 1961

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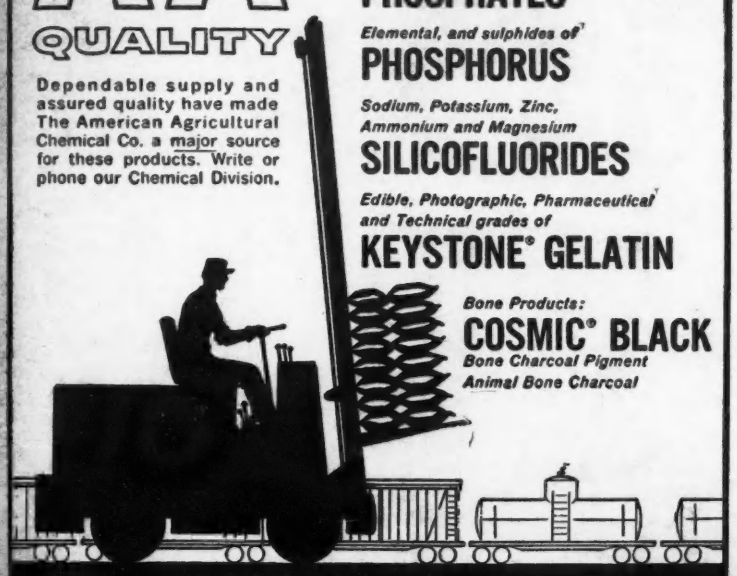

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Oil, Paint and Drug Reporter

Vol. 179 No. 16 30 Church St., New York 7, N. Y. April 17, 1961

TECHNICAL SERVICE CHIEF: Dr. L. E. Craig, named to the newly-created post of director of research and technical service for John Deere Chemical Company, Pryor, Okla.

Sen. Kefauver's Bitter Medicine For Nation's Medicine Makers: Licensing of All Patented Drugs

Compulsory licensing of all new discoveries patented by the drug industry. That's the penalty pharmaceutical makers may have to pay for allegedly overcharging the public for health products. What's more, all manufacturers of ethical drugs may need federal licenses for themselves to remain in business. As for their products, judging by official Washington as to their medical worth may be mandatory before they are allowed on the market. This is the kind of bitter medicine Sen. Estes Kefauver has in mind for the nation's medicine makers.

These restrictions and others, aimed by the Tennesseean at curing the industry's alleged pricing abuses uncovered by his committee last year, are embodied in a bill (S 1552) introduced by Mr. Kefauver in the senate last week. Rep. Emanuel Celler of New York, chairman of the judiciary committee, submitted an identical measure (HR 6245) in the house.

PMA Blasts Bill as 'Impracticable'

The legislation, which undoubtedly would have the most far-reaching impact on the drug industry of any proposal since the Tugwell bill of New Deal days, was promptly blasted by Dr. Karl Bambach of the Pharmaceutical Manufacturers Association as "impracticable, unduly restrictive and detrimental to the public interest."

Dr. Bambach warned that the measure would "destroy or seriously impair the system which has helped to make the United States great and which has made possible tremendous advances in medical care."

The proposed changes in the US patent system, he went on, would be "a catastrophic threat, not just to the drug industry but to every other industry now serving the public through scientific research and new product development."

Sen. Kefauver offered his bill as a substitute for federal control over ethical drug prices. He described the measure

—Continued on page 66

CHEMICAL OPERATIONS V.P.: J. Earl Burrell, appointed vice-president of operations for its chemical division by Pittsburgh Plate Glass Company, Pittsburgh, Pa.

Polyformaldehyde: DuPont Is Taking Celanese to Court

What will it do about the polyformaldehyde patent challenge? E. I. duPont de Nemours & Co.—which has sunk better than $50 million into the wonder resin—provided the answer to this hotly-debated chemical market poser last week by hailing Celanese Corporation of America into court.

The suit, filed in US District Court in Wilmington, Del., charges that Celanese's "Celcon" acetal resin infringes on the patent (No. 2768994) held by duPont on its "Delrin" polyformaldehyde resin.

DuPont is asking the court to enjoin Celanese from producing and selling "Celcon," which plastic was formally unveiled by the New York-based company less than two months ago (OPD, 2/27/61).

Celanese Comments on Suit

This is the Celanese statement on the duPont suit: "Celanese Corporation of America has made a thorough study of the patent situation in connection with 'Celcon' acetal copolymer resin. The company believes there are no grounds for any patent infringement claims against this new and chemically unique material. Full commercial development of 'Celcon' is proceeding according to schedule."

In its complaint, the Wilmington chemical maker says it began research on "Delrin" more than a dozen years ago. It first announced development of the polyformaldehyde resin in 1956, the year it obtained a patent.

DuPont started producing "Delrin" at Parkersburg, W. Va., early last year. The plant's capacity was initially 12 million pounds of resin a year, but the potential is now believed to run upwards of that figure.

The duPont petition says that Celanese "with full knowledge of plaintiff's patent . . . has made and is actively engaged in preparation for large-scale production and sale of products embodying the invention of said patent."

Celanese, in introducing "Celcon" in February, described its resin as an "acetal copolymer." The company feels it is not infringing on any duPont patents because:

- Trioxane, rather than formaldehyde, is used as the starting material.
- "Celcon" is copolymerized with "another chemical," whereas "Delrin" is not a copolymer.

The duPont patent is for polyoxymethylenes and specifically covers composition

—Continued on page 58

UK Sells Polyethylene 'Know-How' to Soviets

What British chemical companies are doing to protect their flourishing trade with the Communist bloc is described in a special "Report From Europe" on page 5.

A deal has been signed calling for the sale of British polyethylene "know-how" to four Soviet bloc nations: Czechoslovakia, East Germany, Poland and Rumania. The UK principals are Imperial Chemical Industries, Ltd., and Simon-Carves, a British engineering concern.

Four polyethylene plant design contracts, worth a total of $19.5 million, went to Simon-Carves. Planned capacity for the four units in Eastern Europe isn't known, but they are to be built over the next three years.

ICI sold its technical "know-how" for the polyethylene facilities to the Communist governments for an undisclosed sum. This is the first time ICI has sold its polyethylene manufacturing "know-how" in Eastern Europe.

The negotiations for the polyethylene installations have been under way for many months and Simon-Carves officials say language and technical and legal differences made most of the difficulties in the talks.

Basic patents on polyethylene, an ICI development of the early 1930's, have now expired. The company is in the midst of negotiations with the Soviet chemical organizations in Moscow on a variety of processes.

Simon-Carves has designed and is now building polyethylene plants in Mexico and Yugoslavia. It also put up a polyethylene facility in India for ICI's Indian subsidiary.

ICI, Integrating Backward, Will Make Its Own Naphtha

Imperial Chemical Industries, Ltd., has decided to integrate backward at Wilton.

To keep its three olefins plants there supplied with naphtha, the British chemical giant intends to put up a refinery capable of distilling a million long tons of crude oil annually.

Yearly naphtha needs at Wilton: around 600,000 long tons.

The new refinery is expected to go on stream late in '62. Crudes will be supplied by Shell Oil Company and British Petroleum Company, which now provide ICI with naphtha.

FMC Gets Ordnance Unit, But Is Very Mum on Plans

The Navy's ordnance plant at South Charleston, W. Va., is being sold by the government to Food Machinery & Chemical Corporation of New York for its high bid of $4.32 million.

Acceptance of the FMC bid by the General Services Administration was disclosed by President John F. Kennedy last week at his news conference.

According to the President, the company plans to provide a "development which will, they hope, stimulate the economy in this area and in this state."

What this means in terms of chemical production is not entirely clear from the company, which is keeping its plans to itself until the papers are signed. This closing is not expected for several weeks.

About all that has managed to leak out of Food Machinery is that it intends to erect a plant to produce a chemical, made elsewhere now by FMC, but never before produced in the Kanawha Valley.

Fluoride Installation Bought Up by Stauffer

Stauffer Chemical Company has just gone into the market place and picked up the special fluoride-producing facilities of Aluminum Company of America, located in East St. Louis, Ill. Responsibility for sale of the unit's products has been turned over to the buyer's industrial chemicals division.

Stauffer is a producer of a wide range of industrial and agricultural chemicals. Included are hydrofluoric acid, soda ash and boron compounds—all required in the production of the fluoride and fluoborate compounds made at the East St. Louis plant. The added facilities, therefore, will permit upgrading these basic materials,

—Continued on page 41

Helium Liquefaction Plant Slated by Linde in Texas

Linde Company, a division of Union Carbide Corporation, will build a liquid helium plant at Amarillo, Tex. The installation will have a capacity of 100 liters per hour of liquid helium, reputedly the largest such commercial production unit in the United States. Construction is scheduled for completion next January.

The liquid helium plant will be built on Linde property adjacent to the company's oxygen plant at Amarillo. The gaseous helium will be supplied via trailer trucks from the government's nearby helium recovery facility at Soncy, Tex.

Spencer, Southern Oxygen Cease Merger Negotiations

Merger negotiations between Spencer Chemical Company and Southern Oxygen Company have been terminated without an agreement.

A spokesman for Spencer says the managements for the two companies are unable to agree on some of the important provisions of the merger proposals (OPD, 4/10/61).

"The action in no way affects the working relationship wherein Spencer produces argon gas at its Vicksburg, Miss., plant for distribution by Southern Oxygen," the spokesman adds.

Rayonier Banks Hopes On a Modified Cellulose

Rayonier, Inc., believes it has come up with a winner in "Ethylose," a purified wood cellulose modified with a small amount of ethylene oxide to alter its behavior characteristics.

Potential markets include coated papers, textiles, paints, ceramics and foods. Coming up almost immediately are new textile sizes, binders and coatings.

Insoluble in water, "Ethylose" can be dissolved readily in aqueous alkali to render stable and useful solutions. Rayonier has started up a new plant at Fernandina Beach, Fla., to make the new material. The price: 50 cents a pound in fifty-pound sacks.

Toluene, Polyethylene Tariffs Are Going Up in Japan

US producers and suppliers of toluene, polyethylene and soybeans are facing higher tariff duties in the Japanese market for these products, but xylene makers are assured that the Japanese tariffs on this product will remain unchanged—at least for the time being.

State Department said last week that it has negotiated some forty tariff concessions that had been granted on US products by Japan under the General Agreement on Tariffs & Trade, including several items of concern to the chemical industry.

As a result, Japanese duties on toluene are being increased from 5 percent to 10 percent; the 20 percent duty on polyethylene is being converted to a flat rate of fifty-two yen (13.9 cents) per kilogram, equal to an ad valorem duty of approximately 19 percent; and the tariff on xylene, both chemically refined and not chemically refined, is being bound at its existing rate of 5 percent.

Other items renegotiated include rosin, which has carried a duty of 5 percent but is now placed on the free list; beef tallow, on which the duty is reduced from 5 percent to 4 percent; lard duties, which are increased from 5 percent to a flat rate of 15 yen (4 cents) per kilogram, equivalent to an ad valorem rate of 21 percent, and safflower seeds, which are changed from the free list to the duty list at 5 percent.

US exports of polyethylene to Japan amounted to $22,976,000 in 1959, ranking next in total to sales of soybeans, which reached $90,203,000 that year.

The conversion of the polyethylene duty to a flat rate in effect amounts to a slight

—Continued on page 44

Drugs and the Place of Origin: A Big State-Federal Question

Does a product of the food and drug industries become subject to the federal food, drug and cosmetic law under these conditions: if it was never intended for sale outside the state of manufacture but was made from ingredients brought into the state from an outside source? That question is being tested right now in the lower courts by Food & Drug Administration. It is considered important to the chemical and drug industries in light of the federal law and its recent amendments covering pesticides, colors and chemical additives.

If the question is decided in favor of the government, officials believe that a vast new area of enforcement will be opened for federal action. Heretofore that area had been regarded by industry as intrastate business subject only to state law.

Two Decisions—Two Ways

Two decisions in the lower courts have brought the matter into focus at the present time—one in which the government was the loser and another more recent one in which the government was the winner.

The first case, involving cooking oil that was labeled olive oil although it mostly contained other vegetable oils, will soon be argued in the Second Circuit Court of Appeals, on the appeal of the government from last year's ruling of Judge James T. Foley in Syracuse, N. Y.

Judge Foley ruled in effect that interstate products lose their identity when combined into a new product and held for sale solely within the state of manufacture. His point was that New York had ample laws on its statute books to take care of any evil, if one existed, in the labeling of the product.

A more recent decision, and one which the FDA is hailing as vastly extending its regulatory authority, involves the misbranding provisions of the drug sections of the law. It is an interim decision of Federal Judge Theodore Levin in Detroit, Mich., involving alleged misbranding of a drug made up for sale in Michigan from other drugs brought into the state.

The manufacturer claimed that his product, "Michigan Brand Korleen Tablets," were not shipped in interstate com-

—Continued on page 49

Nylon Thread Developed For Home Sewing Use

If it hangs by a thread, it will hang—so long as the thread is new "Nylex" heavy-duty nylon. So reports Advance Silk Thread Corporation, Hackensack, N. J.

The thread maker says its Nylex Company division has just commercialized a heavy-duty nylon thread for home sewing—and adds that the product is so strong it defies breaking by hand. The company says the development is "far stronger than any six-cord cotton thread."

TGA Likes the Tune On the Cash Registers

Toilet Goods Association likes the tune the cash registers have been playing. Total sales of perfumes, cosmetics and toilet preparations rang up to $1,784,000,000 in 1960, says TGA, to score a gain of 7¼ percent over the record year of 1959.

And these figures, the association points out, do not include toilet soaps. The sharp increase is considered somewhat surprising in view of the fact that business during the latter part of the year, when toilet goods sales are normally the heaviest, was in a somewhat depressed condition.

In addition, says TGA, weather conditions, immediately prior to Christmas, in those sections of the country which account for an extremely large percentage of sales, were far from good. They interfered with the volume of business

—Continued on page 40

Miles Disclaims Liability In Potassium PAS Case

Miles Laboratories, Inc., has denied a breach of contract claimed by Glenwood Laboratories, Inc., Bergenfield, N. J., regarding an agreement for manufacture and sale of potassium para-amino salicylate.

Glenwood's action, filed against Miles in the Federal District Court at South Bend, Ind., claims breach of contract of an alleged agreement made between Glenwood and Sumner Chemical Company, at that time a Miles subsidiary.

Miles disclaims liability in the Glenwood suit, which demands damages of $2,754,000 and asks for an accounting.

'Dacron,' Nylon Staple, Tow Prices Cut by duPont

"Dacron" polyester fiber staple and tow prices have been hacked from 7 cents to 17 cents per pound, depending on type, by E. I. duPont de Nemours & Co. The Wilmington, Del., firm has lowered prices by 4 cents to 15 cents a pound for 6 denier of nylon staple and tow.

"Dacron" price cuts have been a growing possibility, owing to entry of several new producers into a field which has long seen duPont as sole maker. The timing of the reduction appears to have caught the industry off base, however.

Celanese Corporation of America, whose 40-million-pound-a-year "Fortrel" polyester fiber plant has been producing in Shelby, N. C., since last July, immediately withdrew its price schedule pending a marketing study.

Celanese is already up to its ears in a

—Continued on page 49

The Week's Price Changes

Coconut Oil, Copra, Lard, Oleic Acid, Tall Oil Advanced. Beeswax, Grease, Olive Oil, Sucrose, Tallow Reduced.

Prices Advanced

Bay oil, Puerto Rican, 50-55%, 75c. per lb. (p. 56).
Coconut oil, crude, Pac. coast, ½c. per lb. (p. 60).
N. Y., ¼c. per lb. (p. 60).
Copra, $7.50 per ton (p. 60).
Cottonseed meal, $1 per ton (p. 60).
Cottonseed oil, crude, ¼c. per lb. (p. 60).
Refd., ¼c. per lb. (p. 60).
Lard, cash, ½c. per lb. (p. 60).
Linseed meal, $1 per ton (p. 60).
Oleic acid, 3c. per lb. (p. 60).
Peanut meal, $1 per ton (p. 60).
Rapeseed oil, ½c. per lb. (p. 60).
Soybean meal, $6 per ton (p. 60).
Stearic acid, ¾c. per lb. (p. 60).
Tall oil, crude, ½c. per lb. (p. 60).
Tallow fatty acids, ¾c. per lb. (p. 60).
Thyme oil, red, $1.35 per lb. (p. 56).
White, $1.40 per lb. (p. 56).
Tech., 40c. per lb. (p. 56).
Tin metal (Straits) 4c. per lb. (p. 38).
Salts, ¾c. to 1c. per lb. (p. 38).

Prices Reduced

Celery seed, 50c. per lb. (p. 56).
Cocoa butter, 1c. per lb. (p. 60).
Coumarin, 30c. per lb. (p. 56).
Beeswax, crude, 1c. per lb. (p. 60).
Carnauba wax, No. 2, 4c. per lb. (p. 60).
No. 3, refd., 2c. per lb. (p. 60).
No. 1, yellow, 4c. to 5c. per lb. (p. 60).
Grease, choice white, ½c. per lb. (p. 60).
Hydrooxycitronellal, 5c. per lb. (p. 56).
Indole, 10c. per lb. (p. 56).
Linaloe, 15c. per lb. (p. 56).
Methyl heptin carbonate, 50c. per lb. (p. 56).
Methyl salicylate, ½c. per lb. (p. 56).
Olive oil, spot, 5c. per lb. (p. 60).
Ouricury wax, 2c. per lb. (p. 60).
Sucrose, eastern refinery, 15c. per cwt. (p. 43).
Tallow, bleachable, ½c. per lb. (p. 60).
Extra, ½c. per lb. (p. 60).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER's relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

April 14, 1961	April 7, 1961	April 15, 1960
113.02	112.70	110.71

Preventive Medicine: a Stepchild

Sen. Hubert Humphrey of Minnesota believes that in this country too little emphasis is placed on preventive medicine. Biomedical research expenditures amounts to only $2.30 out of every $100 spent for medical care, he says, and this is not enough to combat disease and disability which may cost the nation $35 billion a year—or even more. The senator is calling for increased expenditures in this area on the basis of a two-year study made by a senate international health subcommittee, which he heads.

He estimates the cost of all forms of health service at $25 billion and says research for "positive health"—preventing disease and disability—should command a larger share of this effort.

Strengthened Budgeting Wanted

In the concluding report of the two-year study, the committee calls for strengthened budgeting and accounting in the federal government's expenditure of $4.1 billion annually for health-related programs.

It states that the federal government is now supporting a total of $8.1 billion of research, development, testing and evaluation in the physical, social, life, engineering and mathematical sciences, involving perhaps 160,000 projects.

More unified indexing of this work would, the committee believes, help avoid

—Continued on page 48

R&D DIVISION MANAGER: Dr. James A. Bralley, appointed manager of the research and development division of A. E. Staley Manufacturing Company, Decatur, Ill.

Phosphate Plant Work Starts in Northern Algeria

Construction has started on a $25 million phosphate project in northeastern Algeria which will exploit reserves estimated at 500 million tons. By the end of 1962, it is expected that the enterprise will have turned out its first 50,000 tons of 75 percent phosphate content.

In 1964 production should hit full stride at 800,000 tons a year. Societe d'Exploitation de Gisement de Phosphate de Chaux de Djebel-Onk, jointly-owned by state and private interests, will mine the deposits. Major shareholder is Compagnie des Phosphates de Constantine, wtih 40 percent of the firm's $6 million capital. The French government holds 34 percent.

Cesium Price Reduced

A reduction of about 50 percent in the prices for cesium metal has been made by Penn Rare Metals Inc., Revere, Pa. The new prices will make 99.5 percent pure cesium available at $100 per pound for quantities of 1,000 pounds or more. In the same quantities, the 99.9 percent pure grade will sell for $125 per pound.

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OIL, PAINT AND DRUG REPORTER, Vol. 179, No. 16, April 17, 1961. Published weekly on Monday by Schnell Publishing Company, Inc., 30 Church Street, New York 7, N. Y., U.S.A. Second-Class postage paid at New York, N. Y. Single copy price: 50 cents. Subscription prices:—United States and Possessions, $5 a year; Canada and Newfoundland, $7; other countries, $12. Copyright, 1961, Schnell Publishing Company, Inc.

Detergent: Good to Eat?

All green plants produce a chemical compound — a surface-active agent—that is strikingly similar to modern synthetic detergents. And now, taking its cue right there, Pennsylvania State University is busy with some studies that could result in production of an edible natural detergent for use as a food additive and stabilizer, much as phospholipids in egg yolk are now used to stabilize an oil-water emulsion into mayonnaise.

The surface-active compound in question, a sulfolipid molecule containing both sugar and fat groups linked to a sulfonic acid radical, apparently is one of the key intermediates for incorporation of sulfur into proteins in plants, say the university scientists.

It appears that the surface-active, or detergent properties, also stabilize the almost molecular-thin layers of chlorophyll which absorb energy from the sun as the first step in photosynthesis.

Radioactive sulfolipid can be detected within seconds after a plant in light is exposed to nutrients containing radioactive sulfur, the university people add.

The Penn State work also contributes to a better understanding of the long-standing mystery of the role of sulfur in plant metabolism. Although it has long been known that sulfur is essential to plant growth, its role and manner of uptake have not been understood. A large fraction of the radioactive sulfur ingested by plants was found in the chloroplasts, and virtually all of it was used to build the sulfosugar molecules.

Most of the work at Penn State is being carried out on scenedesmus, a green algae of stagnant ponds. But the molecule has been

—*Continued on page 66*

OPD Reports From Europe

British Chemical Firms Protect Red Trade Via Political Insurance

British chemical companies, aware of the heavy frowns by their US counterparts, are taking out a little political insurance to protect their flourishing trade with the Communist bloc. Dominion Export, which did the lion's share of trade for UK companies at the recent Leipzig Fair in East Germany, is a good case in point. It is part of the Sterling Group, which has elected two Members of Parliament to its board: Burnaby Drayton, a stock broker, and Brig. Terence Clarke, who is also a partner in a big public relations firm. Sterling has licenses from National Starch & Chemical Corporation.

PURCHASING DIRECTOR: Arthur H. Swanson, appointed director of purchasing of Stauffer Chemical Company, New York, succeeding Kenneth H. Allen who died last month.

At the Leipzig Fair, Dominion Export arranged for the purchase of $8.4 million of East German potash for British firms and sold the Red nation $140,000 of textiles and nearly as much in plastics.

UK Firms With MP's on Boards

Lamet Trading, which is next to Dominion Export in handling East German trade for British concerns but specializes in the Red China market, has another MP, John Woollam, on its board.

Ian Mikardo, Ltd., which does some work in East Germany on behalf of British chemical engineering companies, has a Labour Party MP on its board.

Financing and credit for some of this British-Red trade is arranged through Credit Insurance Association, Ltd., run by the major financing group, Hogg Rob-

—*Continued on page 67*

Allied Is Ringing Up A Double in Urethanes

Allied Chemical Corporation says it will become the first American company to supply both principal components of urethane plastics (polyethers and isocyanates) when commercial production of polyethers begins in July at the Solvay Process Division's Baton Rouge, La., plant.

The unit's initial capacity will be 20 million pounds per year. Dr. Robert H.

—*Continued on page 48*

Texas Gulf Lets Contract To Develop Potash Beds

Texas Gulf Sulphur Company, New York, has awarded to Harrison International a contract for shaft sinking and underground construction in connection with development of the company's potash beds near Moab, Utah.

Harrison International, from headquarters in Miami, Fla., says it expects its shaft to reach the potash formation in the latter half of 1962.

Capital expenditures for the entire project are estimated at $30 million.

A contract for building a milling plant and other surface facilities has already been awarded to Sterns-Rogers Manufacturing Company, which is now at work on the project.

Shrink Films Have a Need: the Right Machinery

Wanted by the plastics industry: high-speed machinery for processing shrinkable films. Given the machinery, annual consumption of shrinkable plastic films for packaging—excluding bags and tubular stock—would quadruple within a year to about 25 million pounds.

This challenge to the packaging machinery industry was laid down last week before the American Management Association's thirtieth National Packaging Exposition in Chicago.

Said Woodrow J. Vogel, general director of Reynolds Metals Company's plastics division:

"Right now, our production facilities are running at full capacity. But the shrink film potential is much bigger—and the challenge now is in the hands of the packaging machinery industry. When high-speed machinery designed specially for shrink films is produced, we'll have passed the last obstacle."

"Packers are crying for shrink film," Mr. Vogel went on. "It is priced competitively with other films and makes a much tighter, more attractive package with no sacrifice of strength."

Produce, baked goods and bundle multipacking of cans and canisters offer a combined potential of 15 million pounds annually for shrink films, Mr. Vogel said.

The remainder of the 25 million pounds would be divided among phonograph records, processed meats, frozen foods, textiles, candy and paper products such as greeting cards and stationery.

On view at the exposition was "Reynolon" oriented polyvinyl chloride plastic film, a product of Reynolds Metals.

It was demonstrated by use of "a semi-automatic sleeve wrapper and a new, improved heat tunnel to shrink the film into a clear, tight overwrap around apples in paperboard trays."

FDA Stands Ready to Receive Requests From Additive Makers For Delays in Proving Safety

The door is open, and inside stands Food & Drug Administration, ready to receive producers of additives and their requests for more time to submit proof concerning the safety of their products under the food additives law. However, manufacturers are being cautioned not to look for anything automatic in the extension issuance procedures. FDA is keeping close tabs on industry's compliance —and stands ready to pull the rug out from under any product that is not measuring up to expectations.

Before granting any further extensions, FDA wants to be convinced by producers that the pre-testing work is being pursued with due diligence, and then it wants to be advised periodically of the progress of the work.

President Opens the Door

President Kennedy opened the door to an expected flood of applications for time extensions when he signed the provisional extension bill, HR 3980, into law last week.

FDA immediately swung into action with an announcement inviting additives producers to begin submitting their applications for processing, and outlining the conditions to be met.

The agency figures that it will take producers a couple of months to get their applications and the necessary accompanying data in order, and for the agency to process the extension requests.

So there will be no confusion among producers as to where they stand under the law, FDA has continued all the extensions previously in effect until July 1.

In the case of special situations, the agency will consider allowing more time for applicants to get their petitions in for processing.

Time extensions will be granted by the agency for such periods as will be needed to complete the scientific work in progress to clear the product for safe use.

These may run anywhere from a few months up to the June 30, 1964, cut-off date of the extension law. Each will be considered on an individual basis on the merits of the data submitted to support the extension petition.

Any extensions beyond January 1, 1962, however, will be conditioned upon a requirement that the applicant submit a report every six months concerning the progress of the test work.

The main purpose of this, it is explained, is to show that the work is being continued and not being permitted to lag. The agency wants to know what progress is being made towards a scientific con-

—*Continued on page 62*

Grange First in Britain To Make PA From Ortho

Grange Chemicals will be the first British producer to make phthalic anhydride via the orthoxylene route.

The company plans on erecting a 15,000-ton-a-year PA plant. Probable site: somewhere near the Isle of Grain in Kent, site of a British Petroleum Company refinery.

The orthoxylene will be supplied by BP California, Ltd. (owned jointly by British Petroleum and California Chemical Company) from feedstock provided by the British Petroleum refinery.

Both British Petroleum and California Chemical each have a third share in Grange Chemicals. The third third in Grange is owned by Distillers Company, Ltd.

Other PA producers in Britain, all of whom make it from naphthalene, include: Imperial Chemical Industries, Ltd., Monsanto Chemicals, Ltd., and United Coke & Chemical Company.

Phthalic production in the UK last year amounted to some 34,000 tons—about 5 percent below consumption.

MARKETING DIRECTOR: Frederick A. Krone, appointed technical and marketing director of polyolefin operations by Foster Grant Company, Leominister, Mass.

Poland Soon to Be Power in Sulfur Mart

Poland is about to spring to the fore as another power to be reckoned with in the world sulfur market. In 1961, the nation expects an output of 130,000 tons of pure sulfur. The goal in 1965 is 400,000 tons.

These predictions follow the start-up of Poland's first sulfur mine and purification plant, which went on stream in December.

Poland's sulfur reserves (average S content: 25-30 percent) are reckoned at 95-110 million tons, the richest known deposits next to those of Mexico.

Discovery of sulfur beds in the region of Tarnow-Brzesko on the Biala River occurred in 1953. The deposit stretches on both sides of the Biala over an area of

—*Continued on page 62*

FMC's Niagara Division Sets Up Pesticide Plant

A new pesticide formulating plant at Dothan, Ala., has been established by Niagara Chemical Division of Food Machinery & Chemical Corporation. The unit will produce insecticide and fungicide formulations for the cotton, peanut, peach, tobacco, soybean and vegetable crops of southeastern Alabama, northwest Florida and south west Georgia.

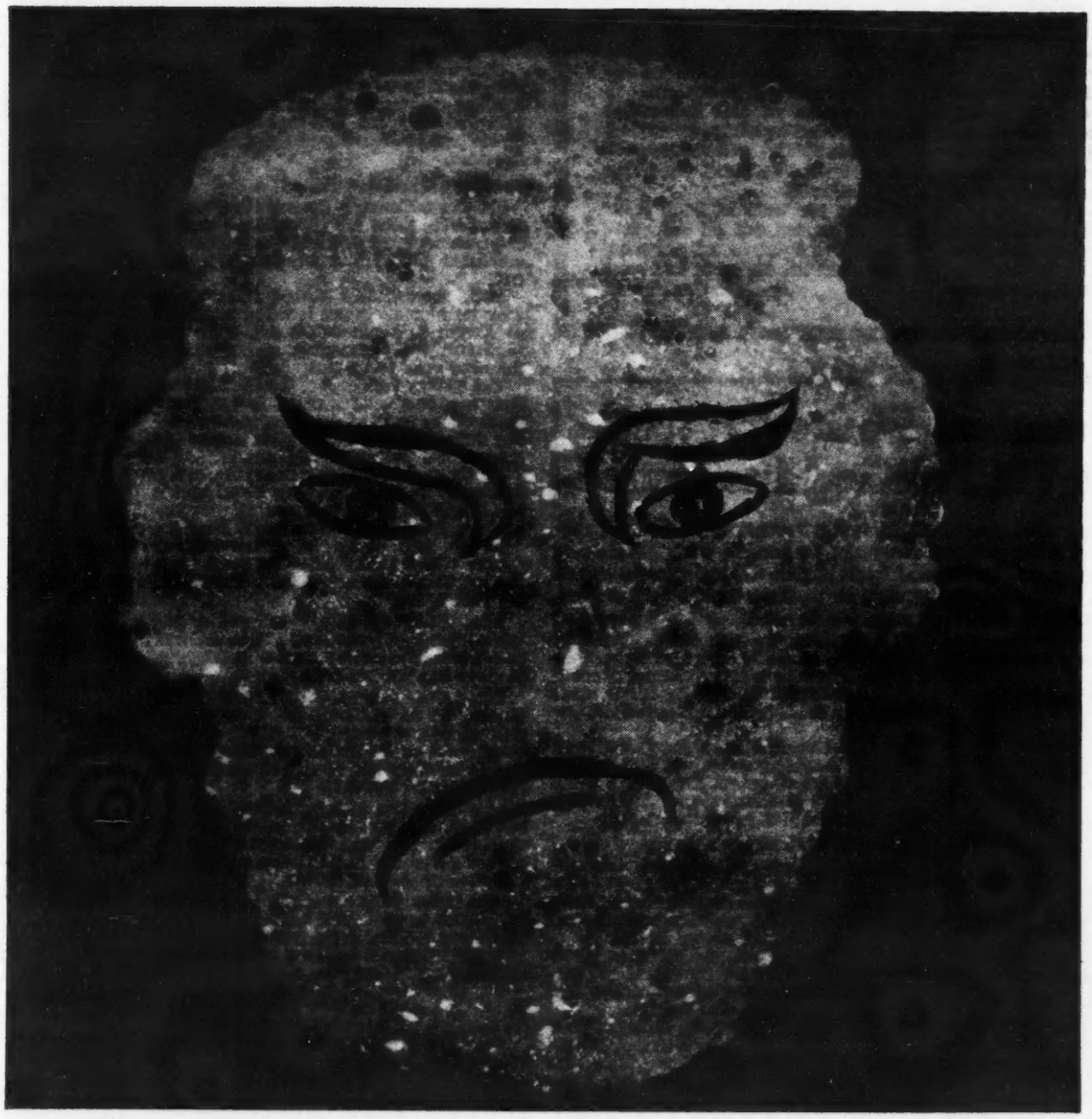
Among the products the Dothan facility will make are formulations of methyl parathion, malathion, sulphur, DDI, "Sevin," ethion, and "Thiodan" insecticde.

Hexadecyl Alcohol Going Commercial

Hexadecyl—a C16 alcohol—will soon be available in commercial quantities from Enjay Chemical Company, New York-based division of Humble Oil & Refining Company.

The new production will result from an expansion of the company's Baton Rouge, La., oxo alcohol facilities from 90 million to 120 million pounds per year capacity. The expansion will be completed early in 1962.

At the same time, Humble reports that it will manufacture more than 15 million pounds of 2-ethyl hexanol annually.



Keep Mr. Foam out of your formulations with

CSC TRIBUTYL PHOSPHATE!

CSC Tributyl Phosphate is a sure solution to foam problems in synthetic latex paints, in paper manufacture, and in a wide range of other industrial applications.

In the manufacture of synthetic latex paints, the addition of as little as 1% Tributyl Phosphate minimizes foam in manufacturing, can-filling, and application of the finished paint; brushability and leveling characteristics are measurably improved also.

In paper manufacture the exceptional cost-efficiency value of Tributyl Phosphate can mean real savings, and the finished product also has no residual odor and minimum chemical residue.

In other foam applications only extremely small amounts of Tributyl Phosphate are required for successful foam control in water adhesives, casein solutions, inks, textile sizing and detergent solutions.

Write for the specifications and complete technical data on CSC's Tributyl Phosphate to Commercial Solvents Corporation, Industrial Chemicals Department, 260 Madison Avenue, New York 16, New York.

COMMERCIAL SOLVENTS CORPORATION

METHANOL • METHYLAMINES • ETHYL ALCOHOL • FORMALDEHYDE • BUTYL ESTERS • ETHYL ESTERS

DEPARTMENT MANAGER: Alfred E. Van Wirt, appointed manager of Hercules Powder Company's Imperial Color Chemical & Paper Department at Glens Falls, N.Y.

Merck Goes to Peru: It's Good for Everyone

If Merck & Co. builds a drug plant in Peru, it is actually protecting the jobs of its American employees, not destroying them. That is the way the company's president, John T. Connor, reasons it out and that is what he said last week in an address before Eastern Union County (N.J.) Chamber of Commerce.

"More US jobs would be lost if US corporations abstained from foreign operations than under present circumstances where they are expanding them," Mr. Connor observed.

"The government of Peru, for example, recently decreed that no finished pharmaceuticals can be imported into Peru. As a consequence, Merck is now building a plant in Lima. This is not a question of 'exporting' American jobs. We either open a plant or we stop selling our products in Peru.

"Incidentally, but of great practical consequence to our US employees, by building a Peruvian plant we assure a continu-

—*Continued on page 57*

Magna-Bond, Delka Sign For Expansion Venture

Magna-Bond, Inc., Bala-Cynwyd, Pa., has completed negotiations with Delka Research Corporation, Hawthorne, N.J., for obtaining $1 million to finance expansion of production and sales.

Under the agreement, Magna-Bond will receive $500,000 from Delka, secured by convertible debentures, with an equal amount being advanced for the promotion of a new resin coating, a polyethylene urethane, now being produced by DRC.

In effect, the agreement pools production and distribution facilities of both firms. Magna-Bond is a producer of anti-corrosive surface coatings, while Delka makes a non-competitive line of protective coatings.

Canadian Chemical Producers Want Only 'a Fighting Chance' In Own Market, SOCMA Told

Canadian chemical makers are not asking for a change in the dominion's basic tariff rates. Rather, they are looking for a modernization of the tariff structure so as to give the industry "a fighting chance in its own market without dealing unfairly with foreign competitors." So reported LeRoy D. Smithers, president of Dow Chemical of Canada, Ltd., to the Synthetic Organic Chemical Manufacturers Association at its regular monthly luncheon meeting in New York last week.

According to Mr. Smithers, Canada is self-sufficient in most important chemicals, but last year it imported 24 percent of its requirements.

"Prices," he continued, "have been depressed in an effort to meet foreign competition and, as a result, profits have declined steadily since 1956, failing to respond even to the upturn of 1958-59.

"After tax profits as a percent of sales declined from about 5 percent in 1956 to an estimated 4.4 percent in 1960.

Ratios to Investment

"The ratios to investment look even worse, falling from 4.5 percent in 1956 to about 3.5 percent in 1960. These figures compare with 7-8 percent in the United States, and usually higher elsewhere."

Many critics of the Canadian chemical industry say that there's nothing wrong that a little economizing won't cure, he noted. In short, he said, they argue that the industry must become more efficient or shut down if it can't compete.

Mr. Smithers felt that this argument has little validity, that the industry "has economized" and that "it is efficient." Instead of economizing, he contended, the industry must be "given an opportunity to compete under rules similar to those that apply elsewhere."

Here, he said, is what Canadian chemical producers are up against:

"The European Economic Community organic chemical rates average about 22

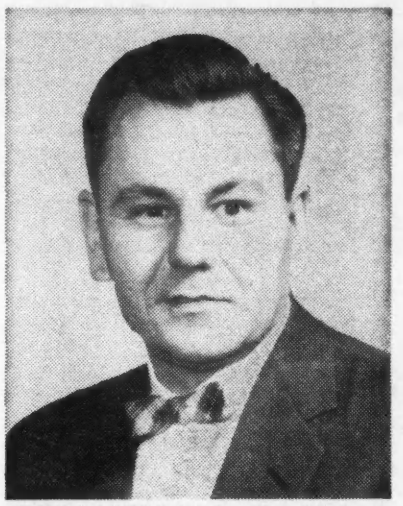
—*Continued on page 59*

Chemical Progress Week: The Chemist Is Honored

"The most basic ingredient of chemical progress is the community of chemists who extend the boundaries of chemical knowledge, who disseminate this knowledge to others, and who apply this knowledge to useful ends," Dr. A. V. Astin, director of the National Bureau of Standards, told 135 industrialists, educators and science students at a luncheon held at the Chemists' Club last week as the industry observed Chemical Progress Week.

The luncheon, sponsored by the Chemical Industry Council of New York with the cooperation of the American Chemical Society and allied trade and professional groups, was a salute to education, and focused attention on the urgent need for an ever larger number of trained scientists.

In his address, Dr. Astin pointed out that during this century the number of chemists has doubled every twelve years, and that the discernible needs of the industry will require that this growth rate be not only maintained but increased in the years immediately ahead.



RESEARCH DIRECTOR: Dr. Elwood F. Booth, jr., appointed director of research for Solvay Process Division, Allied Chemical Corporation, New York.

Drug R&D Costs: $215 Million in 1960

Prescription drug makers anted up a cool $215 million for research and development last year, and they employed nearly 13,000 persons to carry on the program. That is what Pharmaceutical Manufacturers Association reports after completion of an industry survey.

R&D has been jumping ahead rapidly, PMA points out. During the previous year the total was a comparatively small $197 million.

Breaking down the 1960 figure, PMA says the total represents almost $30,000 per research scientist.

In addition, fifty-six companies expect to need some 600 additional scientific staff personnel in 1961—about 10 percent more than presently employed, the association says. These will include specialists in pharmacy, pharmaceutical chemistry, pharmacology, biochemistry and microbiology, the backbone research fields of the industry.

Compilation and analysis of the survey responses was done by PMA with assistance from the National Institutes of Health resources' analysis section. In transmitting the tabulations, the section's

—*Continued on page 62*

East Germany's Chemical Industry Galloping Along

East German chemical production continues to make impressive gains. Sulfuric acid output in 1960 (some 730,000 metric tons) surpassed the goal of 712,000 tons which it is not supposed to each until this year.

Gross output of the East German chemical industry rose to about 71 billion East German marks in 1960 from 64.18 billion EG marks in 1959, according to the Statistical Central Office.

However, it is noted that 1960 figures must be greeted with some skepticism, since the growth rate for the first three quarters of the year was only 8.4 percent.

E. German Chemical Goals*

	1961	1960
Sulfuric Acid	712	730
Caustic Soda	332	327
Soda Ash	636	594
Nitrogen Fertilizer	342	....
Phosphate Fertilizer	284	166
Calcium Carbide	1,013	923
Polyvinyl Chloride	81	59

* Thousands of metric tons. 1960 figures represent reported production. 1961 figures are part of the present seven-year-plan goals.

E. German Industry Split

	Number of Plants	Production Value*
Basic Chemicals	91	2,500
Chemical, Chemical-Technical Plants	500	2,260
Pharmaceutical Plants	141	506
Chemical Fibers	7	565
Petroleum and Tar Products	38	1,760
Plastics Operations	233	480
Rubber and Asbestos Products	104	1,570
Total	1,114	9,641

* In millions of EG marks.

To reach the reported growth of 10.4 percent per year, the last quarter's output would have had to be up 16.7 percent.

The statistical yearbook of the East German Peoples' Republic reports that in 1959, there were 1,114 chemical plants in

—*Continued on page 63*

Magnus Elected Treasurer Of N. Y. Board of Trade

Robert S. Magnus, sr., executive vice-president of Magnus, Mabee & Reynard, Inc., New York, has been elected treasurer of the New York Board of Trade.

Mr. Magnus, who is also chairman of the budget and finance committee was formerly a vice-president of the organization. He has also served as president and treasurer of the Drug, Chemical & Allied Trades Association, a section of the New York Board of Trade.

Association Meetings

ACHEMA 1961, German chemical engineering exposition and congress, Frankfurt am Main, Germany, June 9-17.

American Chemical Society, national meeting, Chicago, September 3-8.

American Institute of Chemical Engineers, joint meeting with Chemical Enneering Division of Chemical Institute of Canada, Sheraton-Cleveland hotel, Cleveland, Ohio, May 7-10.

American Institute of Chemists, annual meeting, Statler hotel, Washington, D. C., May 10-12.

American Oil Chemists' Society, annual meeting, Sheraton-Jefferson hotel, St. Louis, Mo., May 1-3.

American Pharmaceutical Association, annual convention, Sherman hotel, Chicago, April 23-28.

American Society for Testing Materials, annual meeting, Chalfonte-Haddon Hall, Atlantic City, N. J., June 25-30.

American Zinc Institute, annual meeting, Drake hotel, Chicago, May 1-2.

Animal Health Institute, annual meeting, Mayflower hotel, Washington, D. C., April 24-26.

Association of Food & Drug Officials of the United States, annual conference, Mayflower hotel, Washington, D. C., June 18-23.

Chemical Industries Exposition, Coliseum, New York, November 27-December 1.

Chemical Market Research Association, annual meeting, Plaza hotel, New York, May 17-18.

Chemical Specialties Manufacturers Association, midyear meeting, Drake hotel, Chicago, May 15-17.

Commercial Chemical Development Association, annual outing, Bedford Springs hotel, Bedford Springs, Pa., May 24-25.

Drug,Chemical & Allied Trades Association, annual meeting, Pocono Manor Inn, Pocono Manor, Pa., September 14-17.

Electrochemical Society, Claypool hotel, Indianapolis, Ind., April 30-May 4.

Federation of Societies for Paint Technology, annual meeting, Shoreham and Sheraton-Park hotels, Washington, D. C., November 2-4.

Flavoring Extract Manufacturers Association, annual meeting, Savoy-Hilton hotel, New York, May 14-17.

International Congress on Pure & Applied Chemistry, Montreal, Canada, August 6-12.

Lead Industries Association, annual meeting, Drake hotel, Chicago, May 2-3.

Manufacturing Chemists' Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., June 8-10.

National Agricultural Chemicals Association, annual meeting, Homestead, Hot Springs, Va., October 29-November 1.

National Chemical Exposition, sponsored by the Chicago section of the American Chemical Society, International Amphitheater, Chicago, September 5-8.

National Paint, Varnish & Lacquer Association, annual meeting, Statler-Hilton hotel, Washington, D. C., October 30-November 1.

National Petroleum Association, spring meeting, Sheraton hotel, Cleveland, Ohio, April 19-20.

National Plant Food Institute, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., June 11-14.

Pharmaceutical Manufacturers Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., April 30-May 3.

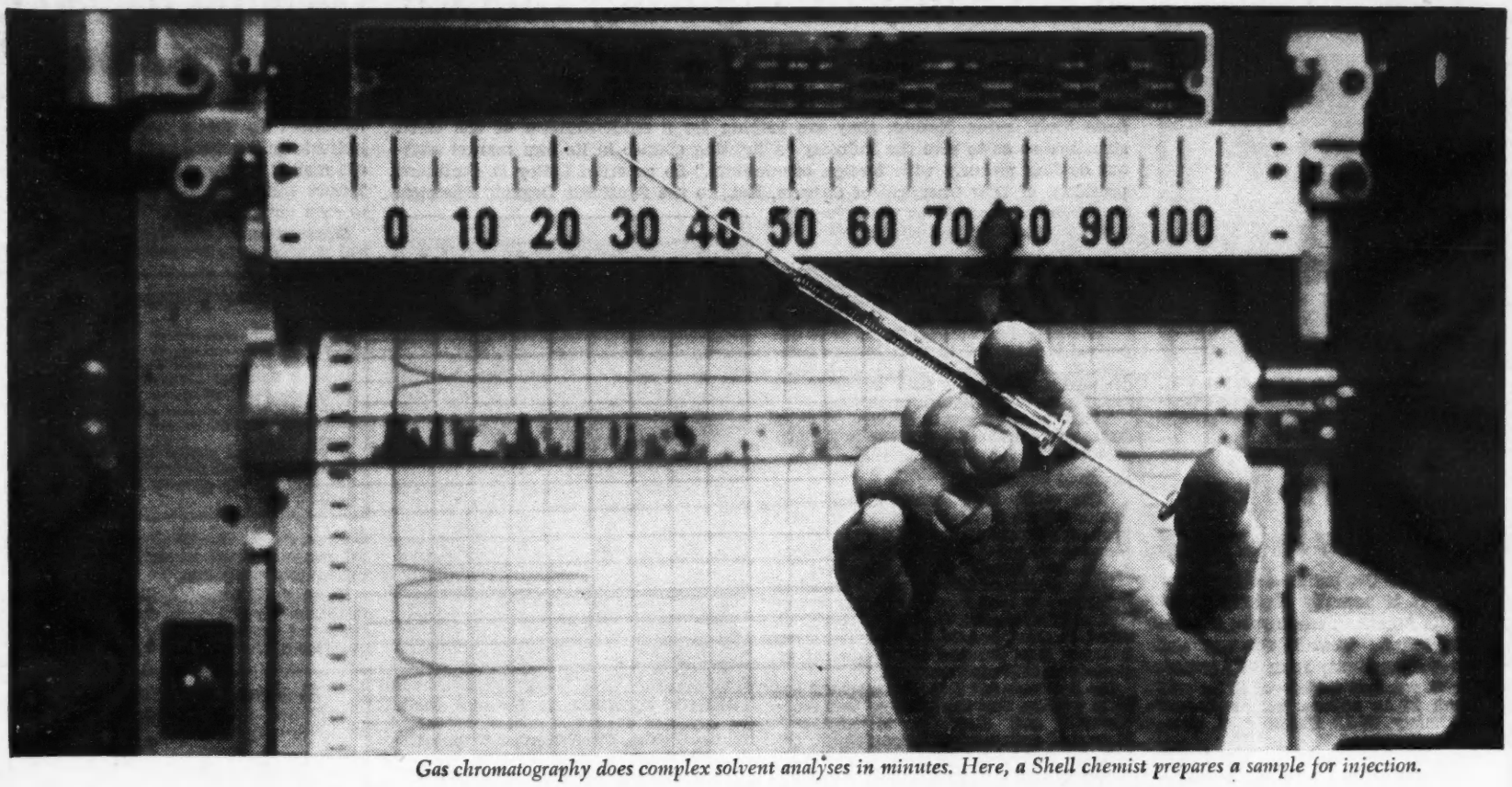
Plastics Exposition, sponsored by the Society of the Plastics Industry, Coliseum, New York, June 5-9.

Proprietary Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., May 14-17.

Society of the Plastics Industry, western section conference, del Coronado hotel, Coronado, Calif., April 26-28; national conference, Commodore hotel, New York, June 5-9.

Synthetic Organic Chemical Manufacturers Association, spring outing, Skytop Lodge, Skytop, Pa., May 22-24.

Toilet Goods Association, annual convention, Waldorf-Astoria hotel, New York, May 9-11.



Gas chromatography does complex solvent analyses in minutes. Here, a Shell chemist prepares a sample for injection.

BULLETIN:

Shell Chemical announces a monograph describing 31 tests–some standard, some ingeniously devised–to give you greater insight into surface coatings.

Shell uses these 31 tests as a backbone in lacquer formulation. They have led to startling concepts such as *the advantages of solvent retention* and to remarkable new high boiling solvents such as Pent-Oxone* *keto-ether* and Pent-Oxol* glycol ether.

Read how you can get an indexed, 60-page copy of this monograph telling how to set up these 31 tests, how to run them and *how they can help improve your current formulations.*

THE 31 tests used regularly at Shell Chemical's Technical Service Laboratory in Union, N. J. have led to some fascinating new fields of investigation. One is solvent retention.

A twist on solvent retention

While slow solvent release is known to cause film shrinkage and have a bad effect on print resistance, *retained* solvent has recently been found to have *good* effects on gloss retention and restoration, cold crack resistance and weatherability.

Test 29 can help you study these dual effects in terms of *what actually happens when lacquer dries.*

Two remarkable new high boilers

Studies of this type led directly to Shell Chemical's two remarkable new high boilers: Pent-Oxone *keto-ether*, particularly promising in formulations with *dissimilar resins* and Pent-Oxol glycol ether for *maximum blush resistance/practical drying time* in nitrocellulose lacquer formulations.

How to get your monograph

To get your monograph, write or call any of the 9 district offices of Shell's Industrial Chemicals Division. Or write to Shell Chemical Company, 110 W. 51 Street, New York 20, N. Y.

Samples and information

When writing for a copy of the monograph, ask for samples and information on any of these items:

Acetone	Isopropyl Ether
Bisphenol-A	Mesityl Oxide
Diacetone Alcohol	Methyl Amyl Acetate
Di-tertiary-butyl peroxide	Methyl Ethyl Ketone
	Methyl Isobutyl Carbinol
Ethyl Alcohol	Methyl Isobutyl Ketone
Ethyl Amyl Ketone	Neosol® Solvent
Glycerine	Pent-Oxone* Keto-ether
Hexylene Glycol	Pent-Oxol* Glycol Ether
Isopropyl Alcohol	Secondary Butyl Alcohol

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A Bulletin from

Shell Chemical Company

SHELL

Industrial Chemicals Division

CHEMICALS AND RELATED MATERIALS

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Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, April 14 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Abies siberica oil cns. ..... lb. 1.90 - 2.40
Acacia (see Arabic gum).
Acetaldehyde, 99%, dms., c.l., frt. alld lb. .12 - —
dms., t.c.l., frt. alld ..... lb. .13½- —
tanks, frt. alld ..... lb. .10 - —
Acetaldehyde prices 1c. higher in West.
Acetaldol (see Aldol)
Acetanilide, tech. flaked, bbls., bgs., c.l., frt alld lb. .32½- —
bbls. bgs. ton lots, frt alld. lb. .33½- —
bbls. bgs. smaller lots, frt. alld lb. .36½- —
USP bbls. 225-lb dms. any quantity lb. .90 - —
100-lb. dms., any quantity lb. .92 - —
Acetic acid comi. or redist., 28%, bbls 100 lbs 4.80 - —
56% bbls. ..... 100 lbs 8.25 - —
70% bbls. ..... 100 lbs 9.95 - —
80% bbls. ..... 100 lbs.10.45 - —
Acetic acid, glacial, syn., CP, dms., c.l., dlvd, E 100 lbs. 18.75 - —
tech., dms., c.l., dlvd, E. 100 lbs. 13.75 - —
dms., t.c.l., dlvd, E ... 100 lbs. 15.25 - —
tanks, dlvd, E ..... 100 lbs. 10.00 - —
USP, tanks, dlvd, E ... 100 lbs. 13.00 - —
Acetic anhydride, aluminum ret. dms., c.l., dlvd, E lb. .16½- —
aluminum ret dms., t.c.l., dlvd E. lb. .18 —
tanks, dlvd, E. lb. .14 —
Acetic anhydride prices 1c. higher in West.
Acetoacetanilide, fib dms., c.l., dlvd lb. .80 - —
fib dms., t.c.l., dlvd lb. .81 - —
Acetoacet-o-chloroanilide, fib, dms., c.l., dlvd lb. 1.35 - —
fib dms., t.c.l., dlvd lb. 1.36 - —
Acetoacet-o-toluidide, fib dms., c.l., dlvd lb. .82 - —
fib dms., t.c.l. dlvd lb. .83 - —
Acetone, CP, dms., c.l., dlvd lb. 10½- —
dms., t.c.l., dlvd lb. 12 - —
tanks, dlvd. ..... lb. .08 - —
Acetonitrile, dms., c.l., frt. alld lb. .34½- —
dms., t.c.l., frt. alld ..... lb. .36 - —
tanks, frt. alld ..... lb. .32 - —
Acetophenetidin, USP, powd., 200-lb. dms., 1,000 lbs., frt. alld lb. 1.20 - —
100-lb dms. 1,000 lbs., frt. alld. lb. 1.22 —
Acetophenone, cns. dms ..... lb 42 1.30
Tech., dms., c.l., works ..... lb. .47 —
dms., t.c.l., works ..... lb. .47¾- —
tanks, works ..... lb. .45 - —
N-Acetyl-p-aminophenol, dms., t.l. (min 23,000 lbs.), frt. adjusted lb. 1.30 - —
dms., 1,000-lb. lots, same basis lb. 1.40 - 1.45
dms., 100-lb. lots, same basis lb. 1.54 - 1.57
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .20 —
cs., t.c.l., ex whse lb. .25½- .31
Acetylene tetrabromide, 16-dm. lots or more, f.o.b. works lb. .53 —
Acetylsalicylic acid, USP, cryst (20, 40 mesh), powd (80 mesh), 250-lb dms., c.l., pt. of shipt lb. .56¼- —
USP 10% starch granulation, 12-50 mesh white, 250-lb. dms., c.l., same basis lb. .56¼ —
(Pink and green granulations 5c. per lb higher.) Freight equald shipt. identical quantity over standard routes, from N.Y., Phila., Midland Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret dms. c.l., frt alld. E of Denver lb. .35½- —
non-ret dms., t.c.l., frt. alld E. of Denver lb. .36½- —
tanks frt. alld E. of Denver, lb. .33 - —
Acetyltriethyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½- —
non-ret dms., t.c.l., frt. alld. E. of Denver lb. .40½- —
tanks, frt. alld. E. of Denver lb. .37 - —

ACIDS
Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls lb .50 .55
Acrolein, tech., dms., c.l., works lb .36 —
dms., t.c.l., works ..... lb. .36¾ - —
tanks, works ..... lb. .31 - —
Acrylamide, dms., t.l., f.o.b. works lb. .58 —
dms., t.l.l. same basis lb. .60 - —
Acrylic acid, glacial, dms., c.l., t.l., dlvd lb. .42½- —
dms., t.c.l., t.t.l., dlvd ..... lb. .43½- —
tanks, dlvd. ..... lb. .40 —
tech., esterification, tanks, frt. alld lb. .36 —
tech., polymerization, tanks, same basis lb. .38 - —
Acrylonitrile, dms., c.l., t.l., frt. equald lb. .26 - —
dms., t.c.l., t.t.l., frt. alld ..... lb. .27 - —
tanks, frt. equald ..... lb. .23 - —

Abies Siberica Oil—Ammonium Bicarbonate

Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., dlvd ..... lb. .32¼- —
bgs., t.c.l., dlvd. ..... lb. .35 - —
Agar, USP Kobe No. 1, strip, bls lb. 3.00 - 3.10
powd., 30 mesh., fib. dms lb. 2.40 - 2.60
dl-Alanine, dms., 100-lbs or more, f.o.b works lb 5.25 - —
dms. 1-99 lbs., same basis lb.10.00 - —
Aldol, 95%, dms., t.c.l., works lb. .28 - —
Aldrin, tech. fib dms. c.l., t.l. dlvd lb. .99 - —
fib dms. t.c.l., dlvd lb 1.04 - —

ALCOHOLS
Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.

Aletris root, bgs lb 1.50 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd E. of Rockies lb. 2.45 - —
Alkali blue prices 1c. higher W. of Rockies

Allethrin, 90%, dms., frt. alld lb.28.80 - 28.90
Soln., 20%, dms., 200-2,000 lb. lots, frt alld lb. 6.50 6.55
2½% dms frt alld. lb. .95 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. dlvd. ..... lb. .32½- —
dms., t.c.l., dlvd. ..... lb. .34 - —
tanks, dlvd. ..... lb. .30 - —
Allyl bromide 55-lb cbys 5,005 lbs or more, works lb. 1.50 - —
55-lb cbys., 1,045 to 4,95... lbs. works lb. 1.53 - —
55-lb. cbys., 55 to 990 lbs works lb. 1.60 - —
Allyl chloride, dms., c.l., dlvd lb. .17½- —
dms., t.c.l., dlvd ..... lb. .19 - —
tanks, dlvd ..... lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).
Almond oil, artif., bitter (see Benzaldehyde)
Almond oil nat. bitter, f.p.a., bots. lb 2.75 3.45
NF, bots. ..... lb 3.00 3.30
sweet, USP, cns., dms. ..... lb. .60 - .70
Aloe, Cape, cs. ..... lb. 35 - .40
powd cs ..... lb 60 .65
Curacao, kgs. ..... lb. .75 - —
powd., kgs. ..... lb. .85 - —

Abbreviations
Used in OPD Market Quotations

alld.	allowed	distr.	distributor	No.	number
amorph.	amorphous	djns.	demijohns	nom.	nominal
AMP	American melting point	dlvd.	delivered	o-	ortho
anhyd.	anhydrous	dms.	drums	ord.	ordinary
AOAC	Association of Official Agricultural Chemists	dom.	domestic	oz	ounce
		E.	east	p-	para
a.p.a.	available phosphoric acid	e.p.	end point	Pac.	Pacific
approx.	approximately	equald.	equalized	pf.	proof
artif.	artificial	exp.	expressed	phos.	phosphate
ASTM	American Society for Testing Materials	Ext.	external	photo.	photographic
		F.	fahrenheit	pkgs.	packages
Atl.	Atlantic	ferment.	fermentation	powd.	powdered
Be.	Baume	f.f.a.	free fatty acid	precip.	precipitated
bbls.	barrels	f.f.c.	free from chlorine	prod.	producer
bgs.	bags	fib.	fiber	pt.	point
bls.	bales	f.o.b.	free on board	pulv.	pulverized
bots.	bottles	f.p.a.	free of prussic acid	purif.	purified
b.p.	boiling point	frt.	freight	redist.	redistilled
b.p.l.	bone phosphate of lime	gal.	gallon	refd.	refined
b.r.	boiling range	gran.	granular	refy.	refinery
bxs.	boxes	grd.	ground	reg.	regular
C.	centigrade	i.&a.	iron and aluminum	resub.	resublimed
cbys.	carboys	i.b.p.	initial boiling point	ret.	returnable
CD	completely denatured	imp.	imported	SD	specially denatured
c.i.f.	cost, insurance, freight	incl.	included	s.d.	single distilled
cks.	casks	indust.	industrial	S.E.	southeast
c.l.	carlots	kgs.	kegs	sec.	secondary
cns.	cans	l-	laevo	secs	seconds
coml.	commercial	lacq.	lacquer	s.g.	specific gravity
conc.	concentrated	lb.	pound	shipt.	shipment
CP	chemically pure	l.c.l.	less carlots	soln.	solution
cps.	centipoises	l.t.l.	less truckload	s.u.	standard unit
cryst.	crystalline	liq.	liquid	syn.	synthetic
cs	cases	mfrs.	manufacturers	tanks.	railroad tankcars
ctns.	cartons	m-	meta	tech.	technical
cyls.	cylinders	m.a.p.	mixed aniline point	tert-	tertiary
d-	dextro	min.	minimum	t.l.	truckloads
dbl.	double	m.p.	melting point	t.w.	tankwagons
denat.	denatured	N-	nitrogen	USP	U. S. Pharmacopoeia
dest-dist.	destructively—distilled	n-	normal	vis.	viscosity
dl-	dextro-laevo	nat.	natural	VM&P	varnish makers & painters
dist.	distilled	neut	neutral	W.	west
		NF	National Formulary	whse.	warehouse
		NNR	New and Nonofficial Remedies	w.w	water-white

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Aloin, USP, bbls., dms., kgs. ... lb. 3.90 - 4.00
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpineol (see a-Terpineol).
Alphatocopherol (see a-Tocopherol).
Alum, ammonium, gran., bgs., works 100 lbs 4.30 —
Lump, dms., works .... 100 lbs 5.05 —
Powd., dms., works ..... 100 lbs 5.20 —
USP, burnt., dms ..... lb. .20 .21
hydrous, dms. ..... lb. .07¾ .08
Alum, potassium, gran., bgs., works. 100 lbs 4.55 —
Lump, dms., works ..... 100 lbs 5.30 —
Powd., dms., works ..... 100 lbs 5.45 —
USP burnt., dms ..... lb. .20 .21
USP hydrous, dms ..... lb. .07¾ .08
Alum, potash-chrome, dms ..... lb. .17 —
Alumina, calcined, bgs., c.l., works. lb. .0535- —
bgs., t.c.l., works ..... lb. .056 .0615
Aluminum acetate, basic soln., 24%, bbls., t.c.l., works lb. .14 —
Aluminum chloride, comi., anhyd., dms., c.l., works, frt. equald lb. .16 - —
dms. t.c.l., works lb. 16½- —
cryst. dms., c.l., works 100 lbs.21.00 —
dms., t.c.l., works 100 lbs.21.50 —
Soln., 32° cbys., c.l., works lb. .0495- —
cbys., t.c.l., works lb. .0570- .1099
tanks, works ..... 100 lbs. 3.95 —
NF, gran., dms., works lb. .31 .33
Aluminum fluoride, tech., anhyd., bgs., c.l., works lb. .16¼ —
bgs., t.c.l. works ..... lb. .17¼ .19¼
bulk, c.l. basis 80% ..... lb. .14½- —
Aluminum fluoride in fib. dms. 0.35c per lb. higher
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs.11.00 - —
containers extra, t.c.l., works. 100 lbs.11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt. equald lb. .0370- —
bgs., 20,000-40,000 lb. lots, same basis lb. .0393- —
bgs., 2,000-20,000 lb. lots, same basis lb. .0495- —
bulk, c.l., same basis ..... lb. .0330- —
Light, bgs., c.l., t.l., works ..... lb. .09½- —
bgs., t.l., to c.l., works ..... lb. .10½- —
bgs., t.t.l., works ..... lb. .11½- —
Aluminum hydroxide, dried, USP XV, fib. dms., works lb. .82½ —
fib dms., contract, works lb. 79½- —
Aluminum hydroxide, gel, pharmaceutical, 14-15% Al_2O_3, fib dms., works lb. .22 —
9-9½% Al_2O_3, fib. dms., works. lb. .19 —
fib. dms. contract, works lb. .18 —
Aluminum hydroxide, tech., powd., (see Aluminum hydrate).
Aluminum metal, 99½% + 30-lb ingots, 10,000-lb. lots, frt. alld lb. .2810- —
50-lb pigs, 10,000-lb lots, frt alld. lb. .26 —
Aluminum oxide, amorphous (see Alumina, calcined).
Aluminum paste, lining, extra-fine, dms lb. .71 —
Standard grade, dms lb. 48½- —
Aluminum powder, lining, extra-fine, dms lb. 1.13 —
Standard grade, dms lb. .83 —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c per lb. for 100-lb. dm., 1½c per lb. for 50-lb dm., 3c. per lb. for 10 lb. can and 5c to 12c. per lb. for smaller containers. Deduct 1c per lb. for single shipment of 400 to 1,499 lbs., 2c for 1,500 to 4,999 lbs., 3c. for 5,000 to 29,999 lbs and 4c. for 30,000 lbs. or more. Where destination is within the continental U. S., a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs or more
Aluminum resinate, precip., 2.1% Al, dms lb. .45 —
Aluminum stearate, dibasic ctns., c.l lb. .39 —
ctns., t.c.l. ..... lb. .40 .44
Monobasic, ctns., c.l. ..... lb. .39 —
ctns., t.c.l. ..... lb. .40 .44
Tribasic ctns., c.l. ..... lb. .39 —
ctns., t.c.l. ..... lb. .40 .44
Aluminum sulfate, coml., grd., bgs c.l., works, frt. equald ton.41.00 —
bulk, c.l., same basis ton.40.00 - —
lump, bgs., c.l., same basis ton.44.00 - —
iron-free, bgs., c.l., works, frt. equald 100 lbs. 3.80 —
bgs. t.c.l., works, frt. equald. 100 lbs. 4.30 4.30
USP, gran., 400-lb. dm., works. lb. .30 —
USP, powd., dms., works lb. .27 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ..... oz. 6.50 - 10.00
p-Aminoacetanilide, tech., paste, dms., frt. alld lb. 1.57 —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.35 1.60
Aminoazotoluene base, bbls., 100% basis lb. 1.15 1.18
p-Aminobenzoic acid, tech., dry, dms., works lb 1.72 —
2-Amino-4-chlorophenol, tech., solid, dms., frt. alld lb. 2.15 3.35
p-Aminodiphenylamine, tech., solid, dms., frt. alld lb. 3.00 —
Aminoethyl ethanolamine, dms., c.l., dlvd lb. .475 - —
dms., t.c.l., dlvd ..... lb. .49 - —
tanks, dlvd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld lb. .44 - —
dms., t.c.l., frt. alld. ..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
dms., smaller lots. ..... lbs. 2.50 - —
p-Aminophenol, dms., frt. alld. lb. 1.15 - —
Aminophyllne, USP, 100-lb. dm., frt. alld lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald E of Rockies ton.92.00 - —
refrigeration, tanks, works, frt. equald, E. of Rockies ton.94.50 - —
Aqueous, 29.4%, tanks, works, anhyd. basis, E. of Rockies ton.95.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l., works, frt. equald 100 lbs 8.25 —
bgs. t.c.l., same basis 100 lbs. 8.65 -12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms lb. .40 - —
Ammonium benzoate, USP, 100-lb. dms., 1,000-lb. lots, works lb 1.90 - —
Ammonium biborate, gran., dms., c.l., works ton 325 - —
dms., ton lots, ex whse 100 lbs.22.86 - —
dms., smaller lots, ex whse 100 lbs.24.11 - —
Ammonium bicarbonate, dom., dms., c.l., works 100 lbs. 7.50 - —
dms., t.c.l., works ..... 100 lbs. 9.50 - —

Ammonium bichromate, dms., works lb .42 .43
Ammonium bifluoride dms. dlvd lb 2145 .2245
Ammonium bromide, NF, gran., dms., c.l. t.l. frt equald lb 44 - —
dms., l.c.l., same basis lb 46 - —
Ammonium carbonate, USP, lump, dms. c.l lb 15½ - —
Ammonium chloride, white tech., fine gran. bgs. c.l. works 100 lbs 6.00 —
bgs. l.c.l., works 100 lbs 8.00 8.45
USP gran. 250-lb dm lb 17¼ —
Ammonium citrate dibasic, 250-lb dm f.o.b works lb 77 - —
Ammonium dichromate (see Ammonium bichromate)
Ammonium fluoride (see Ammonium bifluoride)
Ammonium gluconate, tech., 200-lb. dm f.o.b works E lb. 45 - —
Ammonium hydroxide (see Ammonia aqeous)
Ammonium iodide, NF, 25-lb. jar, f.o.b. works lb. 4.51 - —
Ammonium lauryl sulfate, dms., c.l., frt alld lb. 20½ - —
dms. t.l.l. frt. alld lb 21½ - —
tanks frt alld lb 19½ - —
Ammonium lignin sulfonate, bgs., c.l. works 100 lbs 3.25 —
bgs. l.c.l., works 100 lbs 3.40 3.65
Ammonium linoleate, 80% dms., works lb. .50 .55
Ammonium molybdate, CP, cryst., 400 lb dms. 15,000-lbs works. lb 1.22 - —
400-lb dms. 2,000-lb contracts works lb 1.23 - —
400-lb dms. works lb 1.24 - —
Ammonium nitrate, dom., tertilizer grade 33.5% N bgs. f.o.b works ton.67.00 - —
Ammonium nitrate, dom., with dolomite 20.5% N, bgs. c.l., Hopewell, Va ton.48.00 - —
Imp. Canadian, 33.5% N eastern, bgs. c.l., ship't point frt. equald to $3 ton base price ton.70.00 - —
Ammonium oxalate, tech. fine gran. 250-lb dm. f.o.b works E lb. 28½ —
Tech. powd. 200-lb dm., same basis lb 28½ —
Ammonium pentaborate, gran. bgs., c.l. works ton 193.00 —
bgs., ton lots, ex whse 100 lbs.15.27 - —
bgs. smaller lots, ex whse 100 lbs.16.52 -18.52
Ammonium pentaborate powder $10 per ton higher in bags
Ammonium persulfate, tech., dms., 10-ton lots or more, works lb. .18 —
dms. smaller lots, works lb. .20 .23
Ammonium phosphate, comi., bgs., c.l., works, frt. equald lb .09¼ —
bgs. l.c.l., same basis lb. 10 —
Dibasic NF, V. bbls., dms lb. 46 —
Dibasic, tech., bgs., c.l. works, frt. alld lb. .09¼ —
Ammonium silicofluoride, dms., works lb 12¼ .13¼
Ammonium sulfamate, bgs. c.l., t.l., works lb .19 —
bgs. l.c.l. works lb 20½ .27
Ammonium sulfate, standard granular bulk f.o.b works, base price ton.32.00 - —
Ammonium sulfate, standard, gran., purif., c.l., 100-lb bgs., f.o.b works lb 08½ - —
Large granular bulk c.l. works ton 35.00 —
bgs. c.l. works ton 40.00 —
Tech. bulk c.l., t.l., works ton 52.00 —
bgs. c.l., t.l., works ton 56.00 —
bgs. l.c.l. t.l. works 100 lbs 3.20 5.20
Ammonium sulfide, liq., 40-44%, tanks frt equald, 100% basis, ton 160.00 - —
Ammonium sulfocyanide, tech (see Ammonium thiocyanate)
Ammonium thiocyanate tech. cryst. dms. c.l., works lb .20 —
dms. l.c.l. works lb 22 .26
Tech, soln., 50%, tanks, frt. equald., basis ammonium thiocyanate content lb. .17¼ - —
Ammonium thioglycolate, comi., 55-gal. dms., ton lots, 100% basis lb 1.15 - —
d-Amphetamine hydrochloride, monobasic dms lb 17.50 -23.50
dl-Amphetamine hydrochloride, dibasic dms lb 4.50 6.00
d-Amphetamine phosphate, fib dms., 100-lb lots lb 15.00 —
dl-Amphetamine phosphate dms lb 4.20 5.60
d-Amphetamine sulfate, fib. dms. lb.15.00 -17.00
dl-Amphetamine sulfate fib dms., lb 4.20 5.60
Amyl acetate ex fusel oil, tech., dist from 125° to 150°C., dms. c.l., frt alld E of Rockies lb .18½ .19
dms., l.c.l., same basis lb. .20 .20½
tanks, same basis lb 16 .16½
Amyl acetate ex pentane, reg., dms., c.l., dlvd lb. .19 —
dms. l.c.l., dlvd. lb. .21½ - —
tanks, dlvd. lb. .16½ - —
tech dms., c.l. dlvd. lb. .17 —
dms l.c.l., dlvd. lb .18½ - —
tanks dlvd lb .14½ - —
Amyl acetate syn. oxo process, dms., c.l., dlvd lb. .19 —
dms., c.l. dlvd lb. 20½ - —
tanks, dlvd lb 16½ - —
Amyl alcohol ex fusel oil (see Fusel oil refd).
Amyl alcohol, ferment, refd., 128°-132°C., dms., l.c.l., dlvd lb. 43½ - —
refd., ACS grade, dms., l.c.l., dlvd lb. 45½ - —
ex pentane, mixed amyls, dms., c.l., frt. alld lb. .19 —
dms., l.c.l. frt. alld lb. 20½ - —
tanks, frt alld lb. 16½ - —
Amyl alcohol primary, dms., c.l., frt. alld lb .20¼ - —
dms. l.c.l. frt alld lb .21¾ - —
tanks, frt alld lb. 17¾ - —
Sec-synthetic dms., c.l., works, frt. alld lb .19 —
dms. l.c.l., same basis lb .20½ - —
tanks, same basis lb 17 —
Tert-synthetic, dms., c.l. frt. alld E lb .17 —
dms. l.c.l. frt. alld E lb. 18½ - —
tanks frt alld E lb. 14½ - —
Amyl alcohol 1-pentanol (syn. normal), dms., c.l., works lb. 41¼ - —
dms. l.c.l., works lb 43 - —
tanks, works lb. 39½ - —
2-pentanol, dms., c.l., works lb 65 - —
dms. l.c.l., works lb 70 - —
tanks, works lb 60 - —
Amyl n-butyrate, dms. lb 1.00 1.25
Amyl cinnamic aldehyde dms lb 1.70 2.20
p-tert Amyl phenol, dms. c.l. works lb. .28 - —
dms., l.c.l., works lb. .29 - —

Amyl salicylate, cns., dms. lb. .71 - —
Amyris oil, dms lb. 1.50 - —
Anethol, tech., dms. lb. .80 - .92
USP, cns., dms. lb. 1.05 - —
Angelica root, bls lb. .50 - 1.00
Angelica root oil, bots lb.120.00 -140.00
Angelica seed oil, bots lb.120.00 -130.00
Aniline dms., c.l., frt. alld lb. .20 - —
dms., l.c.l., frt. alld. lb. .21 - —
tanks, frt. alld. lb. .18 - —
Aniline oil (see Aniline).
Aniline salt, dms., c.l. t.l., 20,000 lbs. min., frt. alld lb. .33 - —
dms., l.c.l., same basis lb. .35 - —
Anise oil, USP, dms lb. 1.90 - 3.00
Anise seed, Turkish, bgs. lb. .24 - —
Spanish, bgs. lb. .28 - —
Anisic aldehyde, dms lb. 1.50 - 2.20
o-Anisidine, dms., c.l., frt. alld lb. .80 - —
dms., l.c.l., same basis lb. .82 - —
tanks, same basis lb. 78 - —
p-Anisidine, dms., works lb. .97 - —
Anthracene, 90-95%, dms., c.l., t.l. f.o.b., works lb. .42½ - —
dms. l.c.l., minimum shipment 1,000 lbs., same basis lb. .45 - —
Anthranilic acid, 99% 150-lb. dms., dlvd lb 1.15 - —
Anthraquinone, 99.5% bgs., c.l., frt alld lb. .70 - —
bbls., l.c.l., same basis lb. 73 - —
Electrical grade, bgs. l.c.l., same basis lb 1.10 —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines lb. .32½ - —
cs., c.l., mines lb. .33 - —
Antimony oxide, bgs., c.l., frt. alld. lb. .26½ - .30
bgs., l.c.l., frt. alld. lb. .28 - .31½
Prices of antimony oxide are 2% higher west of the Rockies.
Antimony sulfide, approx 65%, bgs., 10,000-lb. lots, dlvd lb. .23 - —
bgs., smaller lots, dlvd lb. .24 .26
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .41 - —
pails, l.c.l., works lb. .43 - —
Antimony-potassium tartrate, tech., powd., 250-lb., dm., f.o.b. works, E lb. .69½ - —
USP, powd., 250-lb dm., same basis lb. 74½ - —
Apomorphine hydrochloride, USP, bots., 25-oz. lots oz.35.60 - —
Apricot kernel oil, USP, dms lb .55 .70
Arabic gum, amber sorts, 10 bgs. lb. .21 .23
USP, powd., bbls lb. .27 .30
Areca nuts, powd., bbls lb. .18 .20
Arecoline hydrobromide, NF, bots., tins, 100 oz. or more oz 4.00 - —
l-Arginine, free base, dms., 10-kilo lots or more kilo.90.00 - —
l-Arginine glutamate, dms., 10-kilo lots or more kilo.64.80 - —
l-Arginine monohydrochloride, dms., 10-kilo lots or more kilo.60.00 - —
Arnica flowers (true Montana), bls. lb .75 —
Aromatic petroleum solvents (see Solvent Naphtha petroleum, aromatic).
Arsenic, crude (95%), bulk, c.l., works lb. .016 - —
bbls., c.l., works lb. .0.31 - —
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b. works lb. .48 - —
Arsenic, white, powd., bbls., c.l., works lb. .04½ - —
bbls., l.c.l. works lb 06½ - .07¼
Arsenous acid, tech. (see Arsenic, white).
Arsenous acid, USP (see Arsenic trioxide).
Arylid maroons, deep shades, bbls. lb 3.70 - —
Light shades, bbls. lb. 2.85 - —
Asafetida gum, cns lb. .36 - .40
Powd., bbls., dms lb .75 - .80
Asbestine (see Talc, fibrous, New York).
Asbestos, Canadian crude
6D, c.l. (30 tons), mines ton.80.00 - —
7D, c.l. (30 tons), mines ton.75.00 - —
7F, c.l. (30 tons), mines ton.71.00 - —
7H, c.l. (30 tons), mines ton.61.00 - —
7K, c.l. (30 tons), mines ton.50.00 - —
7M, c.l. (30 tons), mines ton.44.00 - —
7R, c.l. (30 tons), mines ton.43.00 - —
7RF, c.l. (30 tons), mines ton.44.00 - —
7T, c.l. (30 tons), mines ton.41.00 - —
7TF c.l. (30 tons) mines ton.44.00 - —
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher
Ascorbic acid, USP dms. 100-kilos. kilo. 6.80 - —
dms., less than 100-kilos kilo. 7.05 - 7.80
Ash, black (see Barium sulfide)
Asphalt, gilsonite, black jet, bgs., c.l., mines ton.43.00 - —
ex-whse, 5 tons or more, N. Y., N. J ton.89.50 - —
select, brilliant black, 340°-360°F fusing pt., bgs., c.l., mines. ton.46.00 - —
270°-295°F fusing pt., bgs., c.l., mines ton.43.00 - —
petroleum, cut-back, tanks, tankwagon, refy gal. .09½ - —
emulsion, tanks, tankwagon refy gal. 09½ - —
steam-refd., 50-80 penetration, tanks, tankwagon, refy ton.21.00 - —
85-300 penetration, tanks, tankwagon, refy ton.20.00 - —
Aspirin (see Acetylsalicylic Acid)
Atropine, NF, tins oz 6.50 - 7.50
Atropine sulfate USP bots oz 5.25 5.75
Azelaic acid, bgs., c.l., dlvd. lb. .40 - —
bgs., ton lots, same basis lb .41 - —

B

Bacitracin, sterile, over 500,000,000 units 50,000 units. .90 - —
non-sterile, over 500,000,000 units, 50,000 units. .65 - —
Balm of Gilead buds, dried bgs lb 1.25 1.35
Barberry root bark, bgs lb 1.00 1.10
Barbital, NF 100-lb dms. f.o.b works lb 4.50 —
Barbital sodium, NF, 100-lb dms. lb. 4.75 - —
Barium carbonate, precip., bgs., c.l., works ton.111.50 - —
bgs., smaller lots, works ton.126.50 - —
Barium chlorate, dms., works lb .32 .41
Barium chloride anhyd., bgs., c.l., works ton.176.00 —
bgs., l.c.l., works ton.196.00 - —
NF, cryst., dms., 400-lbs., works lb 23 - —
Tech., cryst., bgs. c.l. works, 100 lbs 7.00 - —
bgs., l.c.l. works 100 lbs 8.00 - —
Barium chromate, bgs. frt. equald. lb. .38 - —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst., bgs. c.l., t.l., frt. equald ton.208.00 - —
bgs., l.c.l., t.l. frt equald ton.218.00 - —
Barium monohydrate, 99%, bgs., c.l., frt. equald 100 lbs.11.25 —
bgs., l.c.l., frt. equald 100 lbs.11.75 - —

Barium monoxide (see Barium oxide).
Barium nitrate, bbls., c.l., t.l., dlvd. lb. .16 - —
bbls., l.c.l., t.l., dlvd. lb. .17 - —
Barium oxide, grd., dms., c.l., t.l., frt equald ton.275.00 - —
dms., l.c.l., t.l., frt equald ton.285.00 - —
Barium peroxide, dms., frt. equald. lb .20 - —
Barium stearate, ctns. c.l., frt. alld. lb. .41 - —
ctns., l.c.l., same basis lb. .43 .46
Barium sulfate, tech. (see Barytes and blanc fixe).
Barium sulfate, X-ray, 100-lb dm. lb. .19 - —
Barium sulfide, dms., c.l., works. ton.100.00 —
dms., l.c.l., works ton.110.00 —
Barytes, southern, off-color, bgs. mines ton 36.00 - —
95-75% bgs., mines ton.30.00 - —
white, water-grd paper bgs. c.l. St. Louis ton.60.00 -60.25
paper bgs. ex whse New York ton 84.85 —
Battery acid, cbys., c.l., works 100 lbs 2.35 —
cbys, l.c.l., works, E. 100 lbs. 2.65 -10.95
Bauxite, bulk, mines ton 7.00 -10.00
Bay oil NF, Puerto Rican 50-55% cns lb. 4.00 - 4.65
55-60%, cns. lb. 3.60 - —
NF, West Indian, 50-55%, cns. dms lb. 4.25 - 4.50
Bayberry wax, bgs lb. .65 - .70
Beeswax, crude, African, bgs. lb. .52 - .54
Brazilian, bgs. lb. .56 - .57
Central American, bgs lb. .56 - .57
Chilean, bgs. lb. .57 Nom.
Refd. USP, bleached white, bricks 100-lb ctns lb. .67 .69
white, slabs, 100-lb. ctns lb. .66 - .68
yellow, bricks, 100-lb ctns lb .59 .61
yellow, slabs, 100-lb ctns lb .58 - .60
Belladonna leaf, bls. lb. .24 .26
Belladonna root, bls lb. .35 - .38
Bentonite, dom 200 mesh, bgs. c.l., mines ton.14.00 - —
Imp. Italian, white, high gel., bgs., 5-ton lots, ex whse ton.95.20 - —
bgs., 1-ton lots, ex whse ton.99.00 - —
Imp. Italian, white, low gel bgs., 5-ton lots, ex whse ton.93.40 - —
bgs., 1-ton lots ex whse ton.97.16 - —
Benzal chloride, cbys., works lb. .44 - —
Benzaldehyde, NF, dms lb. .74 - —
Tech., dms., c.l., t.l. lb. .42 - —
dms., l.c.l. lb. .44 - —
Benzene, pure or nitration, tanks, works:
Baton Rouge, La gal. .34 - —
Bethlehem, Pa gal. .34 - —
Birmingham district gal. .34 - —
Chicago district gal. .34 - —
Cleveland district gal. .34 - —
Geneva, Utah gal .34 —
Houston, Tex. gal. .34 - .40
Johnstown, Pa gal .34 —
Benzene, pure or nitration, tanks, works:
Lorain, Ohio gal. .34 - —
Middletown, Ohio gal. .34 - —
Mennequa, Colo. gal. .34 - —
Philadelphia district gal. .34 - —
Pittsburgh district gal. .34 - —
Port Arthur, Tex. gal. .34 - —
Benzene, pure or nitration, tanks, works:
St. Louis, Mo. District gal. .34 - —
Sparrows Point, Md gal .34 - —
Syracuse, N. Y. gal. .34 - —
Terre Haute and gal .34 - —
Youngstown, Ohio gal. .34 - —
Lackawanna, N. Y. gal .34 - —
Lone Star, Tex gal. .34 —
Benzene hexachloride, 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech., high gamma, bgs., c.l. t.l. consignment, dlvd. gamma-unit. .0075 - —
bgs., c.l. t.l., direct sale, f.o.b. works gamma-unit. .0065 - —
Tech. low gamma, bgs., c.l., t.l., consignment, dlvd gamma-unit .0075 - —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0056 - —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis lb. 1.19 - —
bbls., l.c.l., same basis lb. 1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb 1.21 - —
Benzidine yellow, AAA, bbls., dlvd. lb. 2.20 - —
AAOT, bbls., dlvd. lb. 2.55 - —
Lightfast, bbls., dlvd. lb. 3.40 - —
Benzocaine, dms., 100-lbs., frt alld. lb. 3.25 - —
Benzoic acid, tech., dms., c.l., t.l., frt. alld lb. .25 .37
dms., l.t.l., same basis lb. .29 - .41
tanks, same basis lb. .21 - —
USP, bbls., dms., ton lots lb .48 - —
bbls., dms., 1,000-lb lots lb .50 —

BENZOL
Benzol quotations, both coaltar and petroleum, may be found under Benzene.

Benzoin gum, Sumatra, cs. lb. .32 —
Benzophenone, dms lb. 1.35 1.45
Benzotriazole, tech. dms. 1,000-lb lots, works lb. 1.95 - —
Benzotrichloride, cbys. 5,000-lb lots or more, frt equald.lb .21 - —
cbys., smaller lots, frt equald lb. .23 - —
Benzoyl chloride, cbys. dms., c.l., works, frt. equald lb. .22 - —
cbys., l.c.l., same basis lb .23 - —
tanktrucks, dlvd Metropolitan area lb .21 - —
Benzoyl peroxide, purif., fib. dms. 50 to 1,000-lb lots works lb .98 1.08
Benzyl acetate, f.f.c. cns. dms lb. .54 —
Benzyl alcohol, NF, dms lb. .54 - —
Tech., dms., dlvd lb 47½ - .65
Benzyl benzoate, USP 40-lb dms.lb. .62 - —
Benzyl chloride, tech., dms., c.l., f.o.b. frt. equald lb. .23 - —
dms., l.c.l., same basis lb .24 - —
tanktrucks, dlvd., Metropolitan area lb. .21 - —
Benzyl cinnamate, cns lb. 3.80 - 4.00
N-Benzyl-N,N-dimethylamine, 50 dms., frt. alld lb 1.25 —
12-49 dms. same basis lb 1.35 - —
1-11 dms. same basis lb 1.90 —
Benzyl formate, cns. lb. 1.70 1.85
Benzyl isoeugenol, cns lb. 8.20 8.30
Benzyl propionate, bots lb. 1.30 1.35
Benzyl salicylate, bots lb. 1.50 1.85
Benzylidine acetone, bots lb. 1.65 1.75
Benzylidine chloride (see Benzal chloride).
Berberine bisulfate cns lb 56.50 —
Berberine hydrochloride, bots lb 56.50 —
Bergamot oil nat. NF Italian cns. lb.11.00 -12.00
Betagammapicoline (see b,g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid)
Betamethylnaphthalene (see Methylnaphthalene)
Betanaphthol (see b-Naphthol).
Betanaphthylamine (see b-Naphtholamine)
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).

Betaphenylethylamine (see b-Phenylethylamine).
BHC (see Benzene hexachloride, tech.).
Biotin, cryst., bots. gram.10.00 - —
Biphenyl (see Diphenyl).
Birchtar oil, crude, cns. lb. 1.50 - 1.90
Rectified, cns. lb. 1.75 - 2.00
Bismuth chloride, jars lb. 5.11 - —
Bismuth hydroxide, dms lb. 4.60 - 4.68
Bismuth metal, bxs. ton lots lb. 2.25 - —
Bismuth nitrate, cryst., 200-lb. dm. lb. 2.25 - —
Bismuth oxychloride, 25-lb. dm., f.o.b. works lb. 4.92 - —
Bismuth subcarbonate, USP, 25-lb. dm., f.o.b., works lb. 3.70 - —
Bismuth subgallate, NF, 200-lb. dm. f.o.b. works lb. 3.98 - —
Bismuth subiodide fib dms lb. 5.37 - —
Bismuth subnitrate NF, 200-lb. dm., f.o.b., works lb. 3.10 - —
Bismuth subsalicylate USP, 100-lb. dm., f.o.b. works lb. 4.15 - —
Bismuth trioxide 100-lb. dms., f.o.b works lb. 4.40 - —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 - —
Bisphenol-A bgs., c.l., t.l., single shipt., 70,000-lbs or more, frt. alld lb. .30½ - —
bgs. c.l., t.l. less than 70,000 lbs., same basis lb. .31 - —
bgs., l.c.l., same basis lb. .32½ - —
Blackberry root bark, bls lb. .50 .55

BLACK PIGMENTS
Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black

Blanc fixe direct process, bgs. c.l., works ton.160.00 —
bgs., l.c.l. works ton.170.00 - —
bgs., l.c.l., New York whse ton.215.00 - —
Blood dried 16-16½% ammonia, bgs., New York unit-ton 5.50 —
Bloodroot, bls. lb. .85 .90

BLUE PIGMENTS
Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue

Blue dyes (see Dyes)
Blue vitriol (see Copper sulfate)
Bois de rose oil, Brazilian, dms lb. 2.05 - —
Peruvian dms. lb. 1.65 - —
BON acid maroons pure, bbls lb. 1.75 —
Resinated bbls lb 1.50 —
Bone black, dms. c.l., frt. alld lb .1750- .2225
l.c.l. works lb. .1950- .2425
Pacific coast bone black prices 3¼c. per lb higher
Bonemeal, steamed, works, E ton.100.00 - —
Bone phosphate defluorinated of lime (see Defluorinated phosphate).
Bone phosphate, precip (see Calcium phosphate tribasic)
Borax, tech anhyd., 99½%, bgs., c.l. works ton.92.00 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 7.67 - —
bgs. smaller lots same basis 100lbs. 8.91 -10.91
bulk c.l. works ton.83.00 —
Borax, tech., gran., decahydrate, 99½% bgs. c.l. works. ton.50.00 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 5.31 - —
bgs smaller lots same basis 100 lbs. 6.56 - 8.56
bulk c.l. works ton 43.50 —
pentahydrate, 99½%, bgs., c.l., works ton.64.50 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 6.12 - —
bgs smaller lots same basis 100 lbs. 7.37 - 9.37
bulk, c.l., works ton.58.00 —
USP powd. bgs c.l. works ton.54.00 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 6.57 - —
bgs. smaller lots same basis 100 lbs. 7.82 - 9.83
Bordeaux powder tribasic bgs., c.l., dlvd lb. .24 - —
bgs. l.c.l., same basis lb. .26 - —
Boric acid, tech. anhyd. 99.9% bgs., c.l., works ton.335.00 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs.21.27 - —
bgs. smaller lots same basis 100 lbs.22.52 -24.52
cryst. 99.9% bgs. c.l. works. ton.163.50 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs.11.67 - —
bgs. smaller lots, same basis. 100 lbs.12.92 -14.92
Boric acid, tech., cryst., 99.9%, dms., c.l., works ton.188.50 - —
dms., ton lots, ex whse., New York or Chicago 100 lbs.13.17 - —
dms., smaller lots, same basis 100 lbs.14.42 - —
gran., 99.9%, bgs., c.l., works. ton.112.00 - —
bgs. ton lots, ex whse, New York or Chicago 100 lbs. 8.78 - —
bgs. smaller lots, same basis. 100 lbs.10.03 -12.03
dms. c.l. works ton.137.00 —
dms., ton lots, ex whse, New York or Chicago 100 lbs.10.29 - —
dms. smaller lots, same basis 100 lbs.11.54 - —
bulk c.l. works ton.106.00 - —
powd., bgs., ton lots, ex whse., New York or Chicago 100 lbs. 9.20 - —
bgs., smaller lots, same basis 100 lbs.10.45 -12.45
dms., ton lots, ex whse., New York or Chicago 100 lbs.10.71 - —
dms., smaller lots, same basis 100 lbs.11.96 - —
USP boric acid $25 per ton higher in bags.
Borneol, cns. lb. 2.75 - —
Boron trichloride, CP, 1,800-lb. cyls., works lb. 1.25 - —
100-lb cyls. works lb. 1.70 - —
Boron trifluoride gas, cyls., t.l., works lb. .70 - —
cyls. t.t.l. works lb. .70 - —
Brimstone (see Sulfur).
Broenner's acid bbls lb. 1.53 - —
Bromine purif. cs. c.l., t.l., dlvd. E of Rockies lb. .32 - —
cs., l.c.l. same basis lb. .34 - .39
Bromine, purif., ret. dms., c.l., t.l., dlvd, E. of Rockies lb. .31 - —
ret. dms. l.c.l., same basis lb. .31 - .34
tanks, same basis lb. .21½ - —
Bromochloromethane dms., c.l., frt. equald lb. .48 - —
dms., l.c.l., same basis lb .50 - —
tanks, same basis lb .47 - —
Bromoform, pharmaceutical grade, 5-gal. cby., frt. equald lb. 1.95 - —

A PATTERN FOR PROGRESS...

These brochures make good reading for resin and coatings manufacturers who've had trouble getting enough maleic anhydride to meet their needs. Good news, too, for those who'd like to get all four major intermediates – maleic, fumaric, benzoic and pentaerythritol – from one dependable supplier.

Heyden's new plants, at Fords and Garfield, New Jersey, have an annual production capacity of 24-million pounds of maleic anhydride, 8-million pounds of white free-flowing technical powder fumaric acid and 12-million pounds of benzoic acid in technical flakes. Heyden offers maleic in the molten state and in 25-gram briquettes which combine the advantages of less dusting and less moisture-absorbing surface.

Complete data on physical and chemical properties of these intermediates are available in the brochures illustrated. Just write Heyden Chemical Division for your copies.

HEYDEN ORGANIC CHEMICALS FOR INDUSTRY
CHEMICAL DIVISION
342 MADISON AVE., NEW YORK 17, N. Y.

FINE HEYDEN CHEMICALS

HEYDEN NEWPORT CHEMICAL CORPORATION

Bromstyrol—Calcium Resinate

Bromstyrol, bots	lb.	5.25	5.35
Brucine, cns	oz.	Nominal.	
Brucine sulfate, NF, cns	oz.	1.45	1.75
Buchu leaves, bbls.	lb.	.50	.55

BROWN PIGMENTS

Brown pigment quotations are listed individually. For example, prices on Brown, iron oxide, may be found in the I's under iron oxide brown.

Butadiene refd cyls. c.l., refy	lb.	.21	—
cyls., l.c.l., refy	lb.	.22	—
tanks, dlvd	lb.	.12¾	—
Butene-1 tanks, works	lb.	.0625	—
Butene-2 tanks works	lb.	.0570	—
n-Butyl acetate ferment. dms., c.l., frt. alld	lb.	.17	—
dms., l.c.l., same basis	lb.	.18½	—
tanks, same basis	lb.	.14½	—
Syn., dms., c.l., dlvd. E	lb.	.17	—
dms., l.c.l., same basis	lb.	.18½	—
tanks, same basis	lb.	.14½	—
sec-Butyl acetate, syn. dms., c.l., dlvd. E	lb.	.14¾	—
dms., l.c.l., same basis	lb.	.16¼	—
tanks, same basis	lb.	.12¼	—
n-Butyl acrylate, dms. c.l. or t.l., straight or mixed frt. alld. E	lb.	.37½	—
dms., l.t.l., same basis	lb.	.38½	—
tanks, same basis	lb.	.35	—
n-Butyl alcohol, ferment, dms., c.l., frt. alld.	lb.	.18	—
dms., l.c.l., frt. alld	lb.	.19¼	—
tanks, frt. alld.	lb.	.15½	—
Sec-synthetic, dms., c.l., dlvd.	lb.	.15	—
dms., l.c.l., dlvd.	lb.	.16¼	—
tanks, dlvd.	lb.	.12½	—
Tert-synthetic, dms., c.l., frt. alld., dlvd. E	lb.	.16	—
dms., l.c.l., same basis	lb.	.17½	—
tanks, same basis	lb.	.13½	—
Butyl aldehyde (see Butyraldehyde).			
Butyl chloride, dms., c.l., works	lb.	.37½	—
dms., l.c.l., works	lb.	.38¼	—
n-Butyl ether, dms., c.l., works	lb.	.35¼	—
dms., l.c.l., works	lb.	.36	—
tanks, works	lb.	.33¼	—
Butyl lactate, dms., c.l., frt. alld. E. Rockies	lb.	.42½	—
dms., l.c.l., same basis	lb.	.43½	—
tanks, same basis	lb.	.40	—
Butyl laurate, dms., works	lb.	.37½	—
Butyl methacrylate, dms., c.l., t.l., works	lb.	.55	—
dms., l.c.l., works	lb.	.55½	—
Butyl oleate, refd., dms., l.c.l., works	lb.	.32	—
Butyl phenylacetate, dms.	lb.	4.50	4.60
Butyl phthalate (see Dibutyl phthalate).			
Butyl stearate, dms., c.l., frt. alld. E. of Rockies	lb.	.27¼	—
dms., l.c.l., same basis	lb.	.28¼	—
Butylamine (see Mono-, Di- and Tributylamine).			
tert-Butylamine, dms., c.l., t.l., f.o.b. works	lb.	.47	—
dms., l.c.l., same basis	lb.	.47½	—
tc., t.t., same basis	lb.	.45	—
Butylated hydroxyanisole, food grade, dms., dlvd.	lb.	4.75	—
6-tert-Butyl-m-cresol (see Mono-tert-butyl-m-cresol).			
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol).			
1,3-Butylene glycol, dms., c.l., t.l., dlvd	lb.	.20¼	—
dms., l.c.l., t.t.l., f.o.b. works	lb.	.22	—
tanks, dlvd	lb.	.18	—
p-tert-Butylphenol, bgs., c.l., frt. alld.	lb.	.25½	—
bgs., l.c.l., same basis	lb.	.26½	—
tanks, same basis	lb.	.23½	—
Butyraldehyde, dms., c.l., dlvd	lb.	.22	—
dms., l.c.l., dlvd.	lb.	.23½	—
tanks, dlvd.	lb.	.19½	—
Butyric acid, 99%, dms., c.l., frt. equald	lb.	.34	—
dms., l.c.l., same basis	lb.	.34½	—
tanks, same basis	lb.	.32½	—
Butyric ether (see Ethyl butyrate).			
Butyrolactone, dms., c.l., t.l., works.	lb.	.40	—
dms., l.c.l., same basis	lb	.43	—
n-Butyronitrile, dms., c.l., dlvd	lb.	.56½	—
dms., l.c.l., dlvd.	lb.	.57½	—
tanks, dlvd.	lb.	.54	—

C

Cacao butter (see Cocoa butter).			
Cadmium CP red dark shade, bbls., frt. alld. E. of Rockies	lb.	5.55	—
Light shade, bbls., same basis	lb	4.65	—
Medium shade, bbls., same basis.	lb.	5.30	—
Cadmium CP red, medium, light shade, bbls., same basis.	lb.	4.90	—
Orange-red shade, bbls., same basis	lb.	4.30	—
Yellow, all shades, bbls., frt. alld. E. of Rockies	lb.	2.95	—
Cadmium chloride, 400-lb. dms., f.o.b. shipping point	lb.	1.49	—
Cadmium iodide, 25-lb fib. dms	lb	6.75	7.00
Cadmium metal, ingots or sticks, ton lots, cs., dlvd	lb.	1.60	—
Cadmium nitrate, purif. cryst., 400-lb. dms., less than 5,000 lbs., f.o.b. shipping point.	lb.	.89	—
400-lb. dms., 5,000 lbs. or more, same basis	lb.	.87	—
Cadmium-mercury lithopone orange, deep shade, bbls., frt. alld E. of Rockies	lb.	1.70	—
Cadmium-mercury lithopone red, dark shade, bbls. same basis	lb.	2.00	—
Red, light shade, bbls., same basis	lb.	1.77	—
Red, medium shade, bbls. same basis	lb.	1.92	—
Red, medium light shade bbls. same basis	lb.	1.85	—
Red, maroon shade, bbls. same basis	lb.	2.08	—
Cadmium-selenide lithopone maroon, bbls., frt. alld E. of Rockies	lb.	2.81	—
Orange, bbls., same basis	lb.	1.63	—
Cadmium-selenide lithopone red, orange-red shade bbls., same basis	lb.	1.77	—
Red, dark shade, bbls. same basis	lb.	2.61	—
Red, light shade, bbls., same basis	lb.	1.63	—
Red, medium shade, bbls. same basis	lb.	2.28	—
Red, medium-light shade bbls. same basis	lb.	2.05	—
Cadmium-selenide, lithopone, yellow, all shades bbls frt alld E. of Rockies	lb.	1.24	—
Caffeine NF citrated, dms 100 lb. lots or more	lb	2.70	—
USP, syn., cryst., hydrous, dms., 100-lb. lots or more, frt. alld	lb.	2.25	—
hydrous, powd., 150-lb. dms., frt. alld	lb.	2.25	—
USP, syn., cryst., anhyd., powd., dms., 100-lb. lots or more, frt. alld	lb.	2.40	—
Cajuput oil, native, cns.	lb	1.75	2.00
Redist. USP cns	lb	1.90	2.10
Calamine USP dms.	lb	.34	—
Calamus oil bots	lb	12.00	20.00
Calciferol, cryst., 10-kilo or more lots, works	gram	.54	—
1-10 kilo lots	gram	.55	—
Calciferol in edible oil (see Viosterol).			
Calcium p-aminosalicylate trihydrate fib. dms., 100 lbs. or more frt adjusted	lb	3.10	—
Calcium bromide NF jars, 100 lbs. or more	lb.	1.10	—
Calcium carbide standard generator size, 600-lb dms. c.l., dlvd	ton.	149.00	—
Calcium carbonate, nat., dry grd., air floated, 325 mesh, bgs. c.l. works	ton.	10.50	—
Chalk, whiting, 325 mesh, bgs., c.l., works	ton.	32.00	34.00
water-grd. ½ to 10 microns, bgs., c.l., works	ton.	30.00	—
10 to 20 microns, bgs., c.l., works	ton	17.00	18.00
Precip., dense, bgs., c.l., works.	ton.	30.00	38.50
bgs., l.c.l., works	ton.	45.00	53.50
medium bgs. c.l., works	ton	38.00	—
bgs., l.c.l. works	ton.	48.00	53.00
Calcium carbonate, surface treated bgs., c.l., works	ton.	42.00	44.00
bgs., l.c.l., works	ton.	57.00	59.00
ultrafine, bgs., c.l., works	ton.	117.50	167.50
bgs. l.c.l. works	ton.	137.50	187.50
Calcium chloride, conc., flake or pellet 94-97%, paper bgs., c.l. works, frt equald	ton.	39.30	—
Flake, 77-80%, paper bgs., c.l., works, frt. equald	ton.	32.00	—
Liquor, 40%, tanks, frt equald	ton.	12.50	—
Powd., 77% min., paper bgs. c.l., works, frt equald	ton.	37.00	—
Purif., gran. dms	lb	.27	—
Calcium chloride, solid, 73-75%, dms., c.l., frt. equald	ton.	30.50	—
dms., l.c.l. works frt. equald.	ton.	36.00	73.00
USP gran. dms.	lb	.32	—
Calcium chromate, bgs., dlvd	lb.	.37	—
Calcium cyclamate, 100-lb dms	lb.	1.95	—
Calcium gluconate, USP, AA grade, 100-lb dm., ton	lb.	73½	—
USP powd. 100-lb dm. ton	lb.	66½	—
Calcium hydride lump, dms. works.	lb	2.20	3.00
Calcium hypochlorite, high test, gran., 45-lb. cs., dlvd E. of Rockies	cs.	27.50	—
100-lb. dms., same basis	dm.	39.50	—
Calcium hypophosphite, dms., 1,000-lb lots	lb	1.28	—
Calcium iodide, 25-lb. jars, works	lb.	4.27	—
Calcium lactate NF, dms., f.o.b. works	lb.	.43	.48
Calcium mandelate, USP, 150-lb. dm., works	lb.	3.25	—
Calcium naphthenate, liq., 4% Ca., dms., frt equald	lb.	.30	—
Calcium pantothenate, USP, jars, 1 kilo or more	kilo.	35.00	—
Calcium para-aminosalicylate (see Calcium p-aminosalicylate)			
Calcium phenosulfonate, dms	lb	1.24	1.35
Calcium phosphate dibasic, USP, dihydrate, bgs., c.l., frt. equald	100 lbs.	8.25	—
Dibasic, feed grade, 18½% P, bgs., c.l., t.l., Bonnie, Fla., frt. equald	ton.	81.00	—
bgs. c.l. t.l., f.o.b. Texas City works	ton.	75.50	—
bgs., l.c.l.,	ton.	96.00	—
Feed grade, 21% P., bgs., c.l., t.l., frt. equald	ton.	97.65	—
bgs., l.c.l. frt equald	ton.	107.65	—
Prices of calcium phosphate dibasic in bulk $3 per ton less than bgs., c.l., prices.			
Calcium phosphate, monobasic, bgs., 10,000-lb lots, frt. equald.	100 lbs.	7.45	—
bgs., smaller lots, same basis.	100 lbs.	7.95	—
Tribasic, NF, precip., bgs., c.l., works, frt. equald	100 lbs.	9.25	—
bgs., l.c.l. frt. equald	100 lbs.	10.00	—
Calcium propionate, any quantity, dms., dlvd E. of Rockies.	lb.	.37	—
Prices W of Rockies 3c. per lb more.			
Calcium phytate bgs., 50 lbs or more f.o.b. warehouse N Y	lb	.39	—
Calcium resinate, precip., dms., frt. alld., works	lb.	.45	—

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You benefit from the careful, painstaking controls at Enjay which start when the crude leaves the ground and do not end until the finished chemical is delivered to your plant. Enjay methyl ethyl ketone comes to you *only* after it has passed strict specification tests using modern test methods, including gas chromatography. You'll find our specs among the highest in the industry:

Purity (wt per cent) min.	99.3
Specific Gravity (20/20°C) min.	0.805
max.	0.807
Acidity (as acetic acid—wt per cent) max.	0.002
Color (Hazen) max.	10.0
Non-volatile Matter (mg/100 ml) max.	2.0
Distillation °C	
Initial min.	78.7
Dry Point max.	80.7
Water (wt per cent)	0.2
Residual Odor	None
Appearance	Clear and free of suspended matter

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EXCITING NEW PRODUCTS THROUGH PETRO-CHEMISTRY

ENJAY CHEMICAL COMPANY

A DIVISION OF HUMBLE OIL & REFINING COMPANY

Calcium silicate, hydrated, bgs., c.l., works	lb.	.06	—
bgs., l.c.l., works	lb.	.06½	—
Calcium silicate, paint grade (see Wollastonite).			
Calcium stearate, ctns., c.l.	lb.	.39	—
ctns., l.c.l.	lb.	.40	.44
Calomel, NF mild, powd., dms., 100-lbs., f.o.b. works	lb	4.32	—
NF, mild, precip., dms., 100-lbs., f.o.b. works	lb.	5.67	—
Camphene, 46° m.p., dms incl., c.l., works	lb.	.15	—
dms. incl., l.c.l., same basis	lb.	.16½	—
tanks, same basis	lb.	.12½	—
Camphene chlorinated, 67-69% (see Toxaphene)			
Camphor, monobromated, NF, dms., kgs	lb.	3.63	3.70
Camphor, syn., tech., 1 bbl. or more,	lb.	.45	—
USP, gran., powd., bbls., 1,000-lb. lots	lb.	.53	—
bbls. smaller lots	lb.	.54	—
tablets, ctns., 1,000-lb. lots	lb.	.80	—
ctns., 500-lb. lots	lb.	.81	—
ctns., smaller lots	lb.	.82	—
Camphor oil, sassafrassy, dms.	lb.	.35	.55
White, dms.	lb.	.26	.50
Cananga oil, native, cns.	lb.	5.00	6.50
Rectified, cns.	lb.	7.25	10.00
Candelilla wax, crude, bgs.	lb.	.57	.58
Refd., pure, bgs	lb.	.62	.63
Powdered Candelilla wax, 20 to 100 mesh, 8c higher			
Cantharides, Chinese, cs.	lb	1.00	—
powd., bgs.	lb	1.15	—
Russian, bgs.	lb	2.00	2.15
powd., bgs.	lb	2.15	2.30
Capric acid, dms	lb.	.27½	.29¾
tanks	lb.	.24¾	—
Caprolactam, monomer, bgs., c.l., t.l., f.o.b. works	lb.	.52	—
bgs., l.c.l., t.l., same basis	lb.	.57	—
tanks, same basis	lb.	.49	—
Capryl alcohol, 85% dms., c.l., t.l., works	lb.	.19	—
dms., l.t.l., same basis	lb.	.19½	—
tanks, frt. equald	lb.	.16½	—
Sec, 92-99% dms., c.l., f.o.b. works	lb.	.22	—
dms., l.c.l., f.o.b. works	lb.	.23	—
tanks, f.o.b. works	lb.	.19½	—
Caprylic acid, dms	lb.	.27¼	.29¾
tanks	lb.	.24¾	—
Capsicum (see Pepper red)			
Capsicum oil (see Capsicum oleoresin).			
Capsicum oleoresin, NF, from dom. pepper, dms	lb	4.00	—
NF, from African pepper, dms.	lb.	4.50	—
Caraway oil, NF, dms	lb.	3.75	—
Caraway seed, Danish, bgs.	lb.	.16	—
Dutch, bgs.	lb.	.19	—
Carbazole, 97%, bbls., ton lots, works	lb.	1.05	—
Carbon black, channel, rubber beads, bulk, c.l., works	lb.	.08	—
bgs., c.l., works	lb.	.08½	—
bgs., l.c.l., works	lb.	.16¼	—
furnace, fast extruding, bgs., c.l., works	lb.	.08¾	—
ctns., l.c.l., whse	lb.	.13½	—
high abrasion, bulk, c.l., works.	lb.	.07¼	—
bgs., c.l., works	lb.	.07¾	—
bgs., l.c.l., dlvd. or whse.	lb.	.14½	—
high modulus, bgs., c.l., works	lb.	.08¼	—
ctns., l.c.l., whse	lb.	.13	—
semi-reinforcing, bgs., c.l., works,	lb.	.05¾	—
bgs., ctns., l.c.l., whse.	lb.	.12½	—
pigment, high color beads, ctns., c.l., works	lb.	.78	—
ctns., l.c.l., dlvd. or whse	lb.	.87	—
medium color, uncompressed, bgs., c.l., works	lb.	.14	—
bgs., l.c.l., dlvd. or whse.	lb.	.22½	—
Carbon dioxide, liquid, wholesale, bulk, 30,000-2,999,999 lbs., dlvd. Metropolitan areas, E	ton.	60.00	115.00
bulk, 3,000,000 lbs. or more, dlvd. Metropolitan areas, E	ton.	55.00	—
Solid, bulk wholesale works	ton	85.00	—
Carbon disulfide, 55-gal. dms., c.l., works, frt. equald to competitive points	lb.	.071	—
55-gal. dms., l.c.l., same basis	lb.	.086	.091
5-gal. dms., 30 dms. to c.l., same basis	lb.	.131	—
5-gal. dms., less than 30 dms., same basis	lb.	.161	—
tanks, f.o.b. works	lb.	.0450	—
Carbon tetrachloride, CP, consumers dms. c.l. frt. alld.	lb.	.12¾	—
dms., l.c.l. frt. alld.	lb.	.15¼	—
Tech. consumers dms. c.l., t.l., frt. alld	lb.	.11¾	—
dms., l.c.l., l.t.l. frt. alld	lb.	.14¼	—
tanks, frt. alld	lb.	.10¾	.11¼
Carboxymethyl cellulose (see CMC).			
Carbromal, NF, dms., 100-lb. lots, works	lb	4.00	4.25
dms., smaller lots, works	lb	4.10	4.75
Cardamom oil, NF, bots	lb.	41.00	43.00
Cardamom seed, bleached "A"	lb.	3.45	—
Bleached "B"	lb.	3.15	—
Decorticated, Alleppey, cs.	lb.	2.70	—
Guatemala, cs.	lb.	2.10	—
Green, Alleppey, bgs.	lb.	2.10	—
Ceylon, bgs.	lb.	2.10	—
Carmine, No. 40, NF, bulk, 100-lb. lots or more, dlvd.	lb.	16.80	—
bulk, smaller lots, dlvd.	lb.	16.90	17.30
Carnauba wax, chalky, bgs., ton lots.	lb.	.65	Nom.
North Country, No. 2, crude, bgs., ton lots	lb.	.73	Nom.
refd., pure, ton lots	lb.	.76	.77
Carnauba wax, North Country, No. 3, Ceara, crude, ton lots.	lb.	.60	.61
North Country, No. 3, Parnahyba, crude, ton lots	lb.	.62	.64
No. 3, refd., pure, bgs., ton lots.	lb.	.67	.68
No. 1, Ceara, yellow, bgs., ton lots.	lb.	.82	.83
Parnahyba, yellow, bgs., ton lots.	lb.	.85	.86
Powdered carnauba wax, 20 to 100 mesh, 8c per lb higher			
Carotene, tech., 1,350,000 A units per gram, tins, 5-10 kilo lots, dlvd.	gram.	.20½	—
in carrot oil, 5,000,000 to 8,000,000 A units per lb., dms., works	million units.	.12	—
USP, microcrystalline in oil, 400,000 A units per gram., dms., dlvd.	million units.	.144	—
b-Carotene, in vegetable oil, semi-solid suspension, 400,000 A units per gram, cns.	kilo.	57.60	—
b-Carotene, liquid in vegetable oil, 500,000 A units per gram, cns.	kilo.	72.00	—
Pure, cryst., 1,600,000 to 1,670,000 A units per gram, cns.	kilo.	240.00	—
Carvol, bots	lb	5.00	5.40
Cascara sagrada bark, bulk	lb.	.32	—
Casein, dom., edible, acid precip., 30 mesh, bgs., 10,000-lb. lots or more, works	lb.	.84	—
Imp., inedible, acid-precip., grd., Argentine, bgs., c.l., ex-dock Eastern seaports	lb.	.16¾	.17¼
Australian, bgs., c.l., same basis	lb.	.19¼	.19¾
New Zealand, same basis	lb.	.24	.25
Cashewnut shell, liquid, treated, dms., c.l., Newark, N.J	lb.	.21	—
dms. ton lots, same basis	lb.	.25	—
t.w., same basis	lb.	.22½	—
Cassella acid, dms. frt. alld., 100% basis	lb	1.44	1.73
Cassia oil, redist., USP, cns.	lb	7.50	9.00
Cassia, Padang, "A," bls.	lb.	.31	—
"B," bls.	lb.	.30	—
"C," bls.	lb.	.29	—
Korintje "A," bls.	lb.	.31	—
"B," bls.	lb.	.29	—
"C," bls.	lb.	.27	—
Castor oil, dom., blown, dms., c.l.	lb.	.2550	—
dms., l.c.l.	lb.	.2650	—
dehydrated, bodied, dms., c.l.	lb.	.2700	—
dms., l.c.l.	lb.	.2850	—
tanks	lb.	.2500	—
dehydrated, unbodied, dms., c.l.	lb.	.2500	—
dms., l.c.l.	lb.	.2660	—
tanks	lb.	.2360	—
hydrogenated, bgs., c.l.	lb.	.2475	—
bgs., ton lots	lb.	.2875	—
bgs., l.c.l., dlvd.	lb.	.3075	—
Castor oil, dom., raw, No. 1, dms., c.l.	lb.	.2200	—
dms., l.c.l.	lb.	.2360	—
tanks	lb.	.2000	—
No. 3, tech., dms., c.l.	lb.	.2125	—
dms., c.l.,	lb.	.2225	—
tanks	lb.	.1925	—
Castor oil, dom., refd., deod., dms., c.l.	lb.	.2650	—
dms., l.c.l.	lb.	.2750	—
tanks	lb.	.2450	—
USP, dms., c.l.	lb.	.2350	—
dms., l.c.l.	lb.	.2450	—
tanks	lb.	.2150	—
Imported, No. 1, Braz., tanks	lb.	.17¼	—
No. 3, tanks, same basis	lb.	.16¾	—
Sulfonated, 50%, dms., works	lb.	.15	.15½
75%, dms. works	lb.	.19	.19½
Castor oil acids, dehydrated, dms.	lb.	.41¼	.43¼
Split, dms.	lb.	.33¾	.34¾
Castor pomace, bgs., c.l., works	ton.	35.00	—
Castoreum nat., cns.	lb.	5.25	—
Syn., cns	lb	9.00	—
Catechol, CP, cryst., fib., dms., works	lb	2.17½	—
Resub., dms. works	lb	4.29½	—
Catnip leaves, Southern, bls	lb.	Nominal.	
Caustic potash (see Potash caustic).			
Caustic soda (see Soda, caustic)			
Cedarleaf oil, USP XIII, cns., dms.	lb.	4.00	5.00
Cedarwood oil, cns., dms.	lb.	1.00	—
Celery seed oil	lb.	11.50	—
Celery seed, French, bgs.	lb.	.36	—
Indian, bgs.	lb.	.21	—
Cellulose acetate, flake, powd., bgs., t.l., dlvd. E	lb.	.36	.51
Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd. E	lb.	.543	.553
27% butyryl content, bgs. dlvd. E	lb.	.593	.603
38% butyryl content, bgs., dlvd. E	lb.	.543	.553
Cellulose acetate-butyrate, 38% butyryl content, half-second, bgs., dlvd. E	lb.	.545	.555
50% butyryl content, bgs. dlvd. E	lb	585	595
Cellulose gum, methyl (see Methyl Cellulose)			
Cellulose gum, pure, high vis., bgs., 23,000-lb. lots or more works, frt. alld	lb	57	—
bgs., smaller lots, same basis	lb	59	—
standard, low or medium vis., bgs., c.l., t.l., frt. alld. E	lb.	.57	—
standard, low or medium vis., bgs., ton, frt. alld. E	lb.	.59	—
(Cellulose gum prices 1c. per lb. higher in west.)			
Cerium hydrate, 74% CeO, fib. dms., 100-lb. lots or more	lb.	1.40	—
77% CeO, fib. dms., 100-lb. lots or more	lb.	1.74	—
Cerium oxalate (see Rare earth oxalate)			
Cerium oxide, optical grade, bgs., 50-lb. lots or more, dlvd.	lb	1.85	1.90
bgs., smaller lots, dlvd.	lb.	2.15	—
Cetyl alcohol, NF, fib. cns., c.l., t.l., dlvd. E	lb.	41½	—
fib. cns., l.c.l., same basis	lb.	43¼	—
tanks, same basis	lb.	.39	—
Extra, cns., c.l., t.l., dlvd. E	lb.	48½	—
fib. cns., l.c.l., same basis	lb.	50½	—
tanks, same basis	lb.	.46	—
Chalk (see Calcium carbonate).			

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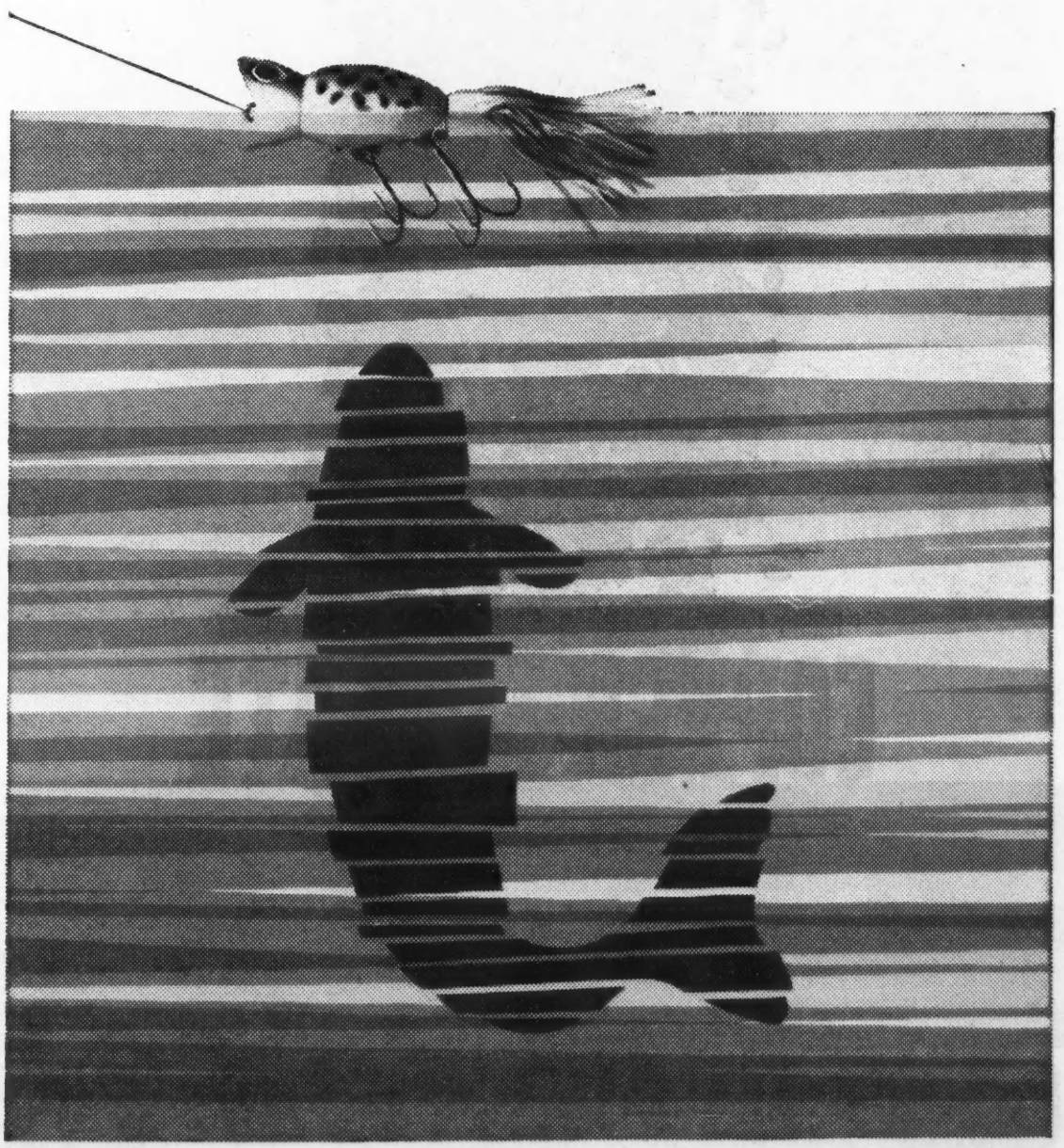

Chamomile Flowers—Cobalt Acetate

Chamomile flowers, Hungarian,	lb.	1.00	- 1.25
Roman, cs.	lb.	1.75	- 2.00
Chamomile oil, blue Hungarian, bots	lb	350.00	—
Charcoal activated NF fib dms. c.l., works	lb.	.34	- —
fib. dms., 5-ton lots, works	lb.	.35	- .35½
fib dms. smaller lots, works	lb.	.36	- .59
Charcoal, black (see Charcoal, activated)			
Charcoal, bone (see Bone black).			
Charcoal hardwood, lump, bulk c.l., f.o.b plant	ton.	55.00	- —
briquets, bulk, c.l., f.o.b plant	ton.	80.00	- —
5-lb paper bgs., c.l., same basis	ton.	106.00	- —
20-lb paper bgs. c.l., f.o.b. plant,	ton.	90.00	- —
40-lb. paper bgs. c.l., same basis	ton.	86.00	- —
Chenopodium oil, NF, cns	lb.	4.75	- 5.00
Chicago acid, paste, bbls., frt. alld.	lb.	3.21	- —
Chinawood oil (see Tung oil).			
Chloral, tech., 94% min., dms., c.l., works	lb.	.23	- —
dms., l.c.l., works	lb.	.24	- —
tanks, multiple units, 5 cars, dms., l.c.l., works	lb.	.21	- —

Chloral hydrate, USP, jars, 1,000-lb. lots	lb.	1.00	- —
jars, 500-lb lots	lb	1.03	- —
jars, 100-lb lots or less	lb	1.05	- —
Chlordan, agricultural, dms., c.l., frt. alld	lb.	.65	- —
dms., l.c.l., 5,000-10,000-lb. lots, frt alld	lb.	66	- —
clarified, dms., c.l., frt. alld	lb.	.69	- —
dms. l.c.l., 5,000-10,000-lb. lots, frt. alld	lb.	70	- —
Chlorinated paraffin, 40%., dms., c.l., frt. alld	lb.	.15	- —
dms., l.c.l., 10 dms or more, same basis	lb.	.16	- —
70%, dms., c.l., same basis	lb.	.18½	- —
dms., l.c.l., 10 dms. or more, same basis	lb.	.19½	- —
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l., works	lb.	60	- —
ctns., l.c.l., works	lb.	61	- —
125 cps. ctns. c.l., works	lb.	70	- —
300 cps. ctns., c.l., works	lb.	.80	- —
Chlorine, liq., cyls., c.l., works, frt. equald	lb.	.11	—
cyls., l.c.l., Metropolitan area, same basis	lb.	.12½	- .13¾
tanks, single units, works, frt. equald 100 lbs.	lb.	3.25	- —
tanks, multiple units, 5 cars, works, frt, equald, same basis..100 lbs.		4.15	- —
tanks, multiple units, 4 cars, same basis..100 lbs.		4.35	- —
tanks, multiple units, 2 cars, same basis..100 lbs.		5.35	- 5.85
tanks, multiple units, 1 car, same basis..100 lbs.		6.25	- 7.25

Chloroacetic acid, mono, flake, 99%, purif., dms., c.l	lb.	.23½	- .25½
dms., l.c.l.	lb.	.24½	- —
tech., flake, 96-97%, dms., c.l., frt. equald	lb.	.19	- —
dms., l.c.l., frt. equald	lb.	.20	- —
3-Chloro-4-aminotoluene, tech., liq., dms., frt. alld	lb.	1.03	- —
4-Chloro-2-aminotoluene, fused, bbls.	lb.	1.38	- —
6-Chloro-2-aminotoluene, tech., liq., dms., frt. alld	lb.	.66	- —
m-Chloroaniline, dms., c.l., frt. alld.	lb.	.75	- —
dms., l.c.l., same basis	lb.	.77	- —
tanks, same basis	lb.	.73	- —
o-Chloroaniline, dms., c.l., frt. alld.	lb.	.52	- —
dms., l.c.l., same basis	lb.	.54	- —
tanks, same basis	lb.	.50	- —
p-Chloroaniline, dms., c.l., frt. alld.	lb.	.77	- —
dms., l.c.l., same basis	lb.	.79	- —
o-Chlorobenzaldehyde, dms., t.l., works	lb	1.05	- —
dms., l.t.l., same basis	lb.	1.20	- —
o-Chlorobenzaldehyde, dms., l.c.l., works	lb.	1.95	- —
o-Chlorobenzoic acid, fib. dms., t.l., works	lb.	1.10	- —
fib. dms., smaller lots, works	lb.	1.25	- —
p-Chlorobenzoic acid, fib. dms., 2,000-lbs. or more, works.	lb.	2.25	- —
fib. dms., less than 2,000-lbs., same basis	lb.	2.30	- —
Chloroform, tech., dms., c.l., dlvd. E	lb.	.18	- —
dms., l.c.l., same basis	lb.	.19	- —
tanks, same basis	lb.	.17	—
USP, dms., c.l., dlvd	lb.	.27	- —
dms., l.c.l., dlvd.	lb.	.30	- —
tanks, minimum 4,000 gals. dlvd.	lb.	.23	- —

2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis	lb.	.90	- —
Powd., dlvd. E., 100% basis	lb.	1.00	- —
4-Chloro-3-nitroaniline, powd., dlvd. E	lb.	.96	- —
4-Chloro-3-nitrophenol, tech., paste, dms., frt. alld	lb.	.75	- —
4-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld	lb.	.99	- —
o-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld	lb.	.25	- —
o-Chlorophenol, dms., c.l., frt. equald	lb.	.37	- —
dms., l.c.l., same basis	lb.	.38	- —
p-Chlorophenol, dms., c.l., frt. equald	lb.	.37	- —
dms., l.c.l., same basis	lb.	.38	- —
Chloropicrin, coml., cyls., 180 lbs., frt alld	lb	1.07	- —
cyls., 100 lbs., same basis	lb.	1.08	- —
cyls., 50 lbs., same basis	lb.	1.14	- —
Chlorosulfonic acid, dms., c.l., frt. equald	lb.	.0465	—
dms., l.c.l. frt equald	lb.	.0515	—
tanks, frt equald	lb.	.0415	—
Chlorosulfonic acid, in stainless steel dms. ½c per lb higher			
o-Chlorotoluene tech. dms., t.l., works	lb.	.37	- —
dms., l.c.l., t.t.l., same basis	lb.	.38	- —
Choline bitartrate, 100-lb. dms., frt. equald	lb.	1.25	- —
Choline chloride, 100-lb dms., frt. equald	lb.	1.25	- —
Choline dihydrogen citrate, 100-lb. dms., frt. equald	lb.	1.25	- —
Chrome green CP dark, light medium blue content, 1-15%, bbls. dlvd E of Rockies,	lb.	.43	- —
blue content 16-30%, bbls., same basis	lb.	.44	- —
Chrome green, medium blue content, 41-45%, bbls., same basis	lb.	.44	- —
blue content, 45-49%, bbls., same basis	lb.	.45	- —
reduced color 25%, bbls., same basis	lb.	.20	- —
Chrome green prices 1c higher W of Rockies.			
Chrome orange CP bbls., dlvd E of Rockies	lb.	.35	- —
Chrome orange prices 1c higher W of Rockies.			
Chrome yellow CP bbls., dlvd E. of Rockies	lb.	.35	- —
Chrome yellow price 1c. higher W of Rockies.			
Chromic acid, 99¾%, dms., c.l., works, frt. equald	lb.	.29½	- —
dms., l.c.l., dlvd. N. Y. Metropolitan area	lb.	.30	.31
Chromic acid, NF (see Chromium trioxide)			
Chromium acetate, soln., 7½%, dms., 500-2,000-lb lots, works.	lb.	.10	- —
Chromium fluoride bbls., works	lb.	.51	.53
Chromium oxide, hydrated, bbls., fib dms. c.l., frt alld.	lb.	1.20	—
Pure, bgs., c.l., frt alld	lb.	.44½	- —
bgs. l.c.l. same basis	lb.	.45¼	- —
Chromium trioxide NF bots	lb.	1.15	—
Cinchona bark NF red, broken, bgs	lb	.25	—
NF, yellow broken, bgs	lb.	.35	.40
Cinnamic acid, refd., bots	lb.	2.50	3.50
Cinnamic alcohol, bots	lb.	1.50	1.60
Cinnamic aldehyde, dms	lb.	.80	1.00
Cinnamon Ceylon, No. 2, bgs.	lb.	.53	- —
Ceylon, No "0000," bgs.	lb.	.73	- —
Cinnamon bark oil, bots	lb.	42.00	-48.00
Cinnamon leaf oil, crude, dms	lb	1.60	2.00
USP (Cassia), cns., dms	lb	8.50	-13.50
Citral, CP bots	lb.	4.50	- 5.00
Extra, bots	lb.	3.60	5.00
Syn., dms	lb	7.25	7.40
Citric acid USP anhyd., fine gran., bgs., dms., c.l	lb.	.29½	- .30
bgs. dms. 10,000-lb. lots, 1 shipt	lb.	.30	.30¼
bgs. dms. smaller lots	lb.	.30½	- .31
Citric acid, USP hydrous, fine gran., bgs., dms., c.l	lb.	.27½	- .28
bgs. dms. 10,000-lb. lots, 1 shipt	lb.	.28	.28¼
bgs. dms. smaller lots	lb.	.29	.29¼
Powdered citric acid ½c per lb. higher			
Citronella oil, Ceylon, dms	lb.	1.00	—
Java-type, dms.	lb.	1.00	- 1.20
Citronellal, bots, dms.	lb.	1.40	1.60
Citronellol bots, dms.	lb	1.90	2.50
Synthetic, dms.	lb.	1.70	- —
Civet, artif., bots	lb.	13.75	-15.00
Nat., bots	oz	8.50	-15.00
Clay, ball, dom. airfloated, bgs., c.l., Tenn	ton.	17.50	-21.50
crushed shed moisture, bulk, c.l., Tenn	ton	8.00	-11.25
imp. airfloated bgs., c.l., Atl. port	net-ton.	43.00	-47.00
lump, bulk, Atl. port	net-ton.	31.50	-37.50
Clay, China, dom., dry-grd., air floated, 99%, 325 mesh, Georgia bgs., c.l., works.	ton.	11.00	-17.00
Georgia bgs. l.c.l., works.	ton.	13.50	-22.50
Imp., white, lump, bulk, c.l., ex-dock, Philadelphia, Portland, Me	long-ton.	23.00	-35.00
white, powd, bgs. c.l. ex dock	net-ton.	50.00	—
bgs. l.c.l. ex whse	net-ton.	60.00	-70.00
Cleaners naphtha, petroleum, 105°F Flash, tankcars New Jersey and New York	gal.	18	—
Group 3	gal.	.12@75	—
Houston, Texas	gal.	.145	—
140°F Flash, tankcars, New Jersey or New York	gal.	.205	- —
Group 3	gal.	.154	- —
Houston Texas	gal.	.17	- —
Cleve's acid tech. mixed, solid, dms., frt. alld	lb.	1.05	- —
1.6, tech. solid dms. frt. alld	lb.	77	- —
1.7 tech. dms frt alld	lb	2.20	- —
Clove bud oil, USP, dms.	lb.	2.65	- —
Cloves, Madagascar, bgs	lb.	.35	- —
Zanzibar, bgs.	lb.	.37	- —
Clove leaf oil, crude, dms	lb.	1.10	- —
CMC, crude, 96.4% low or medium vis bgs., 23,000 lbs., dvld. E., 100% basis	lb.	.40	- —
96.4% low, or medium vis., bgs., less than 23,000 lbs., dlvd. E., 100% basis	lb.	.42	- .46
65%, low or medium vis., bgs., c.l., dlvd. E., 100% basis	lb.	.40	- —
l.c.l., dlvd. E., 100% basis	lb.	.42	- 1.00
purif. high vis (see Cellulose gum)			
CMC prices W. of the Rockies are 1c. per lb. higher and are on a dlvd. basis.			
Coaltar crude resale for soln., tanks, works	gal.	.17	- —
Refd., resale, indust., dms., c.l., ex whse	gal.	.35	- —
dms., l.c.l., ex whse	gal.	.39	- —
tanks works	gal	20½	- —
Coaltar pitch, aluminum, bulk, Works	ton.	42.00	- —
Carbon, bulk works	ton.	42.00	- —
Indust., bulk, works	ton.	44.00	- —
Core bulk works	ton	40.50	- —
Fiber, bulk works	ton	48.00	- —
Roofing, 140-155°F., Federal Specification R P 381 Type 1 tanks, works	ton.	41.00	- —
Cobalt acetate, 23.4% c.o. dms. dlvd	lb.	1.04	- —

BASIC PRODUCT FROM ORE TO FINISHED PRODUCT

COPPER SULFATE

We are miners of Copper—Our technical experience in Copper Chemicals is your assurance of highest purity and uniform consistency.

Tennessee's Copper Sulfate is available in powdered form, as well as large, medium, industrial, granular and snow crystals.

Tennessee has the crystal size to fit your particular needs.

Let us send you complete information on TC Copper products.

TC TENNESSEE CORPORATION

TENNESSEE CORPORATION

612-629 GRANT BUILDING, ATLANTA 3, GEORGIA

Cobalt blue, genuine, 220 lb. bbls., dlvd E of Rockies lb. 4.80 - —
Cobalt blue prices 1c. higher W. of Rockies
Cobalt blue imitation (see Ultramarine blue).
Cobalt carbonate, 48% Co., powd., bgs., dlvd lb. 1.45 - —
Cobalt chloride, 24.2% Co., dms., dlvd lb. .93 - —
Cobalt hydrate, 60-61% Co., dms., dlvd lb. 1.97 - —
Cobalt linoleate, fused 8½% Co., dms lb. .71½- —
Liq., 6% Co., dms lb. .57½- —
Cobalt metal, 99% dms., f.o.b. carrier lb. 1.50 - —
Cobalt naphthenate liq., 6% Co., dms., dlvd lb. .48¾- —
Cobalt nitrate, 20.1% Co., bbls., dlvd lb. .75 - —
Cobalt oxide, black, ceramic grade, 72½-73½% Co., kgs., dlvd E of Mississippi R. lb 1.15 - —
70-71% Co kgs. same basis lb 1.12 - —
Cobalt oxide prices W. of Mississippi R. 3c. per pound higher
Cobalt phosphate, powd., 32.1% Co., dms., dlvd lb. 1.35 —
Cobalt resinate, fused 3% Co. dms lb. .38½- —
Cobalt sulfate, cryst., 21% Co., dms., dlvd lb .64 - —
Monohydrated, 33% Co., dms., dlvd lb 1.09 - —
Cobalt tallate, 6% Co., dms., dlvd lb .44 - —
Cocaine, USP, cns., 100-oz. lots, f.o.b. works oz. 17.50 - —
Cocaine hydrochloride, cns., 100-oz. lots f.o.b. works oz. 13.75 - —
Cocillana bark, bls lb .18 - .20
Cocoa butter, bgs lb. .53 - .58
Coconut oil, crude, tanks, f.o.b. York lb. .13 - —
tanks, Pac. coast ¾-
Refd., deodorized, dms. lb. .19 - .20
Coconut oil acids, dist., dms lb. .21½- .24
tanks lb. .19 —
double dist. (stripped), dms. lb. .22½- .25
tanks lb. .20 —
Cod oil, dms., spot lb. .03¼- .08½
Codeine, NF, cns., 100-oz. lots oz. 13.25 - —
Codeine hydrochloride, cns., 100-oz. lots oz. 11.75 - —
Codeine phosphate, USP, cns., 100-oz. lots oz. 10.25 - —
Codeine sulfate, USP, cns., 100-oz. lots oz. 10.75 - —
Codliver oil, USP, dms gal 1.40 1.70
Cohosh root, black, bls lb .20 .25
Blue, bls lb .20 .25
Colchicine, USP, bots. 27.50 -29.00
Colchicum root, bls lb .35 .45
Colchicum seed, bgs. lb. .85 .90
Collodion, USP, dms. lb. .32½- —
SP, flexible, dms lb. .34 —
Colocynth pulp, bls lb .75 —
Columbo root, bls lb .16 .18
Condurango bark, bls lb .18 .20
Congo copal gum, No. 1, bgs lb .26 .27
No. 2, bgs lb .23 .25
No. 3, bgs lb .21 .24
Copaiba balsam, cns., dms. lb. .80 .90
Copaiba oil, cns lb 1.35 2.00
Copper acetate, bbls., c.l., works lb .53 - —
bbls., l.c.l., works lb .54 - —
Copper carbonate, 55%, dark dense, works lb. .34.35 - —
bgs., l.c.l., works lb. .35.85 - —
Copper chloride, cupric, anhyd., dms., works lb. .43½- .44
cryst., dihydrate, dms., works lb. .29¾ .30¼
cryst., dried, dms., works lb. .37¾ .38½
cuprous, dms., works lb. .3855- .4155
Copper cyanide, tech., dms., 20,000-lb lots or more lb. .609 —
dms., 1,000-lb lots or more lb. .619 —
dms., smaller lots lb. .639 .65
Copper gluconate, dms lb. 3.20 —
Copper hydrate, dry, dms., c.l., frt. E of Miss lb. .52½- —
dms., l.c.l., same basis lb. .53 - —
Copper metal, electrolytic, dlvd. Valley, basis lb. .29 - —
Copper naphthenate, liq., 8% Cu, dms, frt alld lb. .25½- —
Copper nitrate, tech., cryst., dms., works lb. .30¾ .32¾
Copper oleate, solid, 9% Cu, dms., works lb. .45 —
Copper oxide, black, bbls., 100-5,000-lb lots, works lb. .46 - —
red, 97%, USP Type 1, bbls., 100-5,000-lb. lots lb. .46½- —
90% USN Type II, bbls., 100-5,000-lb lots or more, works lb. .45½- —
Copper quinolinolate, 18% Cu, dms., ton lots lb 4.25 —
10% active quinolinolate, dms lb 1.14 1.18
Copper resinate, precip., dms., frt. alld lb. .47 - —
Copper sulfate, CP, gran., dms., works lb. .1885- —
Cryst., 99%, bgs., c.l., works, 100 lbs. 12.00 - —
bgs., l.c.l., works 100 lbs. 12.50 -15.00
Copper sulfate, monohydrated, 35% dms., c.l., works 100 lbs. 22.65 - —
dms., l.c.l., works 100 lbs. 23.40 - —
Tribasic, distributors, bgs., c.... works 100 lbs. 29.10 - —
bgs., l.c.l., works 100 lbs. 30.60 - —
Copper undecylenate, dms lb 2.75 —
Copra, Atl., Gulf ports, c.i.f. ton. 165.00 - —
Pac. ports, c.i.f. ton. 160.00 - —
Coriander oil, USP, bots. lb. 6.50 7.25
Coriander seed, Moroccan, bgs lb. .18 —
Rumanian, bgs. lb. .14 —
Yugoslavian, bgs lb .08½ —
Corn oil, crude, tanks, works lb. .17½- .17¾
Foots, (soapstock acid 95%) tanks, New York lb. .06½- .06¾
Refd., salad, dms. lb. .2323- .2350
tanks lb. .2123- —
Corn oil acids, dist., dms lb. .15½- .18
tanks lb. .13 - —
Corn sugar, tanners, chipped, paper bgs, c.l. 60,000 lbs. min 100 lbs. 7.30 - —
paper bgs., l.c.l. 100 lbs. 7.45 - —
Corn syrup, 43° Be., tanks, dlvd. N.Y. 100 lbs. 6.30 - —
non-ret. dms., c.l., same basis, 100 lbs. 7.23 —
Corrosive sublimate (see Mercuric chloride).
Cortisone acetate, USP, bots., kilo or more gram .95 1.75
Costus oil, bots oz 6.00 —
Cottonseed meal, 41%, bgs., Memphis ton. 56.00 -57.00
Cottonseed oil, crude, tanks, South, East lb. .14¾ Nom.
tanks, Valley lb. .14⅛ Nom.
tanks, Texas, Waco lb. .14⅛ Nom.
Foots (soapstock, acid 95%), New York, tanks lb. .04 - .04⅛
Refd., salad, dms. lb. .19⅛- .19⅜
tanks, salad, dms. lb. .17⅜- —
Cottonseed oil acids, dist., dms lb. .15½- .18
tanks lb. .13 —
Cotarnin, NF, cryst., dms lb. 3.00 - 3.30
Cramp bark, NF, bls. lb. .90 - 1.00
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots., cbys. lb. 3.05 3.26

Creosote, coaltar, crude, tanks, works, frt. adjusted gal. .34 - —
Crude, soln. 30%, tanks, works, gal. .328 - —
Refd., dms., c.l., works gal. .50 - —
dms., l.c.l., same basis gal. .53 - —
tanks, same basis gal. .38 - —
West Coast creosote prices computed on a basis of 24c. per gallon for straight oil and 20c. per gallon for coaltar.
Creosote, beechwood, cbys., dms., f.o.b. works, dlvd. in Metropolitan area lb. 1.72 - 1.77
Hardwood, NF, cbys., dms., same basis lb. 1.43 1.47
Pinewood, dms., incl., c.l., works lb. .0611- —
dms., incl., l.c.l., works lb. .0684- —
dms., incl., l.c.l. ex whse., New York lb. .0795- —
tanks, works lb. .0511- —
Creosote oil (see Creosote coaltar).
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., frt. alld lb. .16½- —
non-ret. dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .145 - —
USP, 50% 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., same basis lb. .18 - —
non-ret. dms., l.c.l., same basis, lb. .19 - —
tanks, same basis lb. .16 - —
m-Cresol, 95-98%, dms., c.l., works lb. .60 - —
dms., l.c.l., works lb. .61 - —
m-p-Cresol, 5-95%, 3°C., dms., c.l., frt. equald lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .16 - —

m-p-Cresol, 2.97% 2°C., dms., c.l., frt. equald lb. .22 - —
dms., l.c.l., same basis lb. .23 - —
tanks, same basis lb. .20 - —
o-Cresol, 30.5°C. m.p. and over, ret., dms., c.l., frt. equald lb. .17 - —
ret. dms., l.c.l., same basis lb. .18 - —
tanks, same basis lb. .15 - —
30°-30.49°C. m.p., dms., c.l., frt. equald lb. .16½- —
ret. dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .14½- —
29°-29.9°C. m.p., dms., c.l., frt. equald lb. .16 - —
ret. dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .14 - —
25°-28°C. m.p., dms., c.l., frt. equald lb. .15 - —
ret. dms., l.c.l., same basis lb. .16 - —
tanks, same basis lb. .13 - —
p-Cresol, 98%, dms., c.l., dlvd lb. .52 - —
dms., l.c.l., dlvd lb. .53 - —
tanks, dlvd lb. .49 - —
2,3-Cresotic acid, dms., ton lots, works lb. 70 - —
dms., smaller lots, works lb. .72 - —
p-Cresyl methyl ether, cns lb. 1.80 2.05
Cresylic acid, coaltar, dom., meta-para content above 25%, resins and tricresyl phosphate grades, dms., c.l., t.l., frt. equald gal. 1.35 - —
dms., l.c.l., same basis gal. 1.40 - —
tanks, same basis gal. 1.15 - —
metapara content 25% or less, dms., c.l., t.l., same basis gal. 1.20 - —

Cresylic acid, coaltar, dom., metapara content 25% or less, dms., l.c.l., same basis gal 1.25 - —
tanks, frt. equald gal 1.00 - —
Imp., metapara content 25% or less, f.o.b. works, frt. equald to competitive points, 50 dms. or more gal. 1.03¼ —
less than 50 dms., same basis gal 1.05 1.15
tanks, same basis gal 1.00 —
Crotonaldehyde, 91-93% dms., l.c.l., works lb .25 - —
Crotonic acid, dms., 200 lbs. or more, l.c.l., dlvd lb .38 - —
Cryolite, nat., indust., bgs., c.l., works 100 lbs. 13.00 - —
bgs., l.c.l., works 100 lbs. 14.25 - —
Cube root, powd., 5% rotenone, bgs., t.l., works lb 21 —
bgs., l.t.l., works lb 22 —
Cubeb berries, NF, bgs. lb. 1.30 - —
Powd., cs. lb. 1.45 - —
Cubeb oil, cns lb 8.75 9.00
Cumene, dms., c.l., works lb .12 —
dms., l.c.l., works lb .14 - —
tanks, works lb .11 - —
Cumin seed, Iranian, bgs. lb. 19 - —
Moroccan, bgs. lb. .36 - —
Turkish, bgs. lb. .18 - —
Cumin seed oil, bots., cns lb. 15.50 -17.00
Cyanamide, fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract ton. 57.00 - —

CYCLOHEXANONE

(„Anon")

Formula: $C_6H_{10}O$

Technical grade, minimum 98,5 %

A product of State Mines in Limburg, Heerlen, with many industrial applications, such as:

Plastics	Solvent for p.v.c. its copolymers and polymers of esters of methacrylic acid. Raw material for cyclohexanon resins, caprolactam and adipic acid
Lacquers, paints and varnishes	solvent for lacquers based on nitrocellulose, p.v.c. and -copolymers, constituent of paint removers
Insecticides	preparation of DDT-concentrates
Leather industry	degreasing agent, solvent for some dyes
Lubricants	additive to aircraft engine oils to improve lubricating affect
Organic chemical industry	manufacture of cyclohexanone-peroxide
General	degreasing agent, component of stain removers

Sales through.

NEDERLANDSCH VERKOOPKANTOOR VOOR CHEMISCHE PRODUCTEN N.V.

N. V. C. P. supplies many other raw materials and auxiliaries out of the production of its associated factories for the plastics and related industries, such as:

Amino acetic acid (Glycine, glycocol)	• condensation with formaldehyde and phenol to ion exchange resins, preparation of amino resins
Chloromethylrther	• introduction of the CH_2Cl radical
Trichloroacetic acid	• catalyst in lacquer systems and other polymerization reactions

as well as:
diphenylolpropane, orthotoluenesulfonamide

These are only a few of the many chemicals for industry

V-4-157E

Cyanamide, fertilizer, pulv., 21% N, bgs., works unit-ton 2.85 - —
Indust. grade, bgs., c.l., works ton 75.00 - —
bgs., l.c.l., works ton 96.00 - —
Indust grade 6-16 mesh, dms., c.l., works ton 120.00 - —
dms. l.c.l., works ton 140.00 - —
Cyclohexane 99% tech., dms. c.l., dlvd E of Rockies gal 1.02 - —
dms. l.c.l. same basis gal 1.10 - —
dms. c.l. dlvd W of Rockies gal .77 - —
dms., l.c.l., same basis gal .85 - —
tanks, works gal .55 - —
96% tech 40-dm lots or more, f.o.b works gal .56 - —
5-39 dms same basis gal .60 - —
tanks same basis gal .36 - —
Cyclohexanol tech., dms. c.l., works, frt. alld. E lb. .30½- —
dms. l.c.l works same basis. lb. .31½- —
tanks, works, same basis lb. .28 - —
Cyclohexanone tech dms., c.l., works lb. .33½ —
dms., l.c.l. works lb. 34½ —
tanks works lb 31 —
Cyclohexylamine, tech, dms., c.l., works lb. 49 —
dms., l.c.l., works lb. .50 —
tanks, works lb. 47 - —
Cypress oil bots. lb 5.30 —

D

2,4-D tech. bgs. dms. c.l., works, frt equald lb 40 —
bgs. dms. l.c.l. same basis lb 45 49
2,4-D butyl ester dms. c.l. works. lb. 43 —
dms., l.c.l. same basis lb 48 .52
tanks same basis lb 42 —
2,4-D isopropyl ester, dms., c.l., works lb 43 —
dms. l.c.l. works lb 48 52
tanks, works lb. 42 —
Dammar gum Batavia, A E cs lb No stocks
East India Batu bold. bgs lb. .15½ .18
nubs and chips, bgs lb. .10 .11
black, bold, bgs lb. .16 .18
nubs and chips, bgs lb. .13 .14½
unscraped bgs. lb .13 .14½
pale, chips, bgs lb .16 - .18
pale nubs bgs lb 20¾ 24
Siam cs lb 31½ 34
Singapore No. 1, bgs. lb. .38 .44
No 2, bgs. lb .29 32
dust bgs. lb 18 20
No 3, bgs. lb No stocks
Dandelion root, bls lb .35 40
DDD, tech. flake grd., fib dms., c.l., works lb. 45 47
fib dms. l.c.l. works lb 46 48
DDT, flake or lump, bgs. c.l., dlvd lb .23 —
bgs. smaller lots, same basis lb .25 - —
fib dms. c.l., same basis lb 24 - —
fib dms. smaller lots, same basis lb 26 - —
Powdered DDT 1c per pound higher.
DDVP (see Dimethyl dichlorovinyl phosphate)
l-Decanol, tech. dms. c.l., dlvd E. lb 43½- —
dms., l.c.l., dlvd E. lb 45½ - —
tanks, dlvd E lb 41 —
Decyl alcohol, mixed isomers, dms., c.l., dlvd lb .23½- —
dms., l.c.l., dlvd. lb .25 —
tanks, dlvd. lb 21 —
Perfume grade, bots. lb 1.00 2.00
Decyl alcohol normal (see l-Decanol)
Deertongue leaves, bls. lb. .50 .60
Defluorinated phosphate, feed grade 14% P paper bgs. c.l., t.l., Tupelo, Miss ton 52.00 - —
18% P, paper bgs., c.l., Plant City, Fla ton 61.25 - —
paper bags, c.l., works, Miss ton 66.00 —
18% P paper bgs. c.l. t.l. works, Houston, Tex ton 66.35 —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices
Degras, common (15-17% free fatty acid), 400-lb dms lb. .12 14
Neutral (over 2% free fatty acid), 400-lb dms lb. .13 —
Denatured alcohol, ethyl, CD 12, CD-13, CD-14 CD-17, dms., c.l. dlvd E of Rockies, gal. 69½ —
dms., l.c.l. same basis gal. 74½ 80½
tanks dlvd. same basis gal 53½ —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division
Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd E of Rockies gal. .72 —
dms. l.c.l. same basis gal 77 .83
tanks, same basis gal 56
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division
Denatured alcohol ethyl, SD1, dms., dlvd E of Rockies gal. 70½ —
dms. l.c.l same basis gal 75½ 81½
tanks, same basis, gal. .54½ —
SD2B, dms. c.l. dlvd E of Rockies gal 69 —
dms., l.c.l., same basis gal 74 80
tanks same basis gal. 53 —
SD3A dms. c.l. dlvd E of Rockies gal. 68 —
dms. l.c.l same basis gal 73 79
tanks, same basis gal .52 —
SD23A, dms., c.l., dlvd. E. of Rockies gal. 70½ —
dms., l.c.l., same basis gal 75½ 81½
tanks same basis gal .54½ —
SD23H, dms., c.l., dlvd. E. of Rockies gal. 71 —
dms., l.c.l., same basis gal. 76 .82
tanks, same basis gal .55 —
Denatured alcohol SD29 dms., c.l., dlvd E. of Rockies gal. 69½ —
dms l.c.l. same basis gal 74½ 80½
tanks, same basis gal. 53½ —
SD30, dms. c.l dlvd. E of Rockies gal 68 —
dms. l.c.l., same basis gal. 73 79
tanks same basis gal 52 —
SD23H, dms., c.l., dlvd. E. of Rockies gal 71 —
dms. l.c.l., same basis gal 76 82
tanks same basis gal 55 —
SD-40, dms., dlvd. E. of Rockies. gal. .70½- —
dms. l.c.l. same basis gal 75½ 81½
tanks, same basis gal 54½ —
For anhyd. alcohol on above formulas prices are 7c per gal higher
West coast dlvd prices are the same as eastern prices, except in Idaho Montana, Oregon, and Washington where a 5c differential on tankcars is maintained
d-Desoxyephedrine hydrochloride, dms lb 15.00 17.00
dl-Desoxyephedrine hydrochloride, dms lb 6.40 - —
Dextrin, corn, gum, paper bgs., c.l., 100 lbs. 9.39 - —
paper bgs., l.c.l. 100 lbs. 9.54 - —
canary dark, paper bgs., c.l. 100 lbs. 9.23 - —
paper bgs., l.c.l 100 lbs. 9.38 - —
indust. grade, 6-16 mesh, canary light, paper bgs., c.l. 100 lbs. 9.13 - —
paper bgs., l.c.l. 100 lbs. 9.28 - —
white paper bgs., c.l. 100 lbs. 8.97 - —
paper bgs., l.c.l 100 lbs. 9.12 - —
Corn dextrin in cotton bgs. 15c per 100 lbs higher
Dextrose, anhyd. coml. bgs., c.l. 100 lbs 8.65 —
bgs. l.c.l 100 lbs 8.80 —
Anhyd. special, aluminum foil lined fib dms., 200-lb dms 100 lbs. 14.70 - —
100-lb. dms 100 lbs. 15.20 - —
Hydrated, comil. bgs., c.l., ex whse 100 lbs 7.45 —
bgs. c.l., ex whse 100 lbs. 7.60 —
USP dms lb. 19¾- —
Diacetone alcohol, acetone-free, dms, c.l., dlvd lb. 15½- —
dms., l.c.l., dlvd. lb. 17 —
tanks, dlvd lb .13 —
Tech. dms. c.l. dlvd. lb .15 —
dms. l.c.l. dlvd lb .16½- —
tanks dlvd lb 12½ —
Diacetyl, flavor grade, bots lb. 3.30 4.30
Di-sec-amyl phenol, dms., c.l., works lb .32 —
dms. l.c.l., works lb .33 —
tanks works lb .29½- —
Di-tert-amyl phenol, dms., c.l., works lb .32 —
dms. l.c.l., works lb .33 —
tanks works lb. 29½- —
Diallylamine, dms., c.l., dlvd. lb .98½- —
dms. l.c.l., dlvd. lb 1.00 - —
tanks dlvd lb .96 - —
o-Dianisidine dry, tech, fib dms. lb 2.00 - —
Dibenzyl sebacate dms. c.l., works. lb .93 - —
dms., l.c.l., same basis lb .94 - —
tanks same basis lb .91 - —
Dibromobenzene, bgs., 500-lb lots. lb .55 - —
2,6-Di-tert-butyl-p-cresol, feed grade, c.l., t.l., dms., dlvd lb. .65 - —
t.t.l., dms. same basis lb 68 —
Food grade c.l. t.l. dms., dlvd. lb 65 —
dms. t.t.l. same basis lb 68 1.10
Tech., dms., c.l. t.l. dlvd. lb .57 —
dms. l.c.l., same basis lb 60 - —
tanks same basis lb .54 —
Dibutyl fumarate, dms., c.l., t.l., dlvd E lb. .31½- —
dms., l.c.l., t.t.l., dlvd E lb. .33 —
tanks, dlvd E lb .29 —
Dibutyl maleate, dms. c.l., t.l., dlvd E lb. .31½- —
dms., l.c.l., t.t.l. dlvd E lb 33 —
tanks, dlvd E lb. 29 —
Dibutyl phthalate, dms. c.l., dlvd, E lb. .31½- —
dms., l.c.l., same basis lb. .33 - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .29 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .29 - —
Dibutyl sebacate dms., c.l., works. lb .67½ —
dms., l.c.l., works lb. .68½ —
tanks, works lb. .65½- —
Dibutyl tartrate dms., works, frt. alld lb. .65½- —
Dibutylamine, dms c.l., dlvd lb 55½- —
dms., l.c.l., same basis lb .57 —
tanks, same basis lb 53 —
Dicapryl phthalate, dms., c.l., dlvd lb. .28½- —
dms., l.c.l., dlvd. lb. .30 —
tanks, dlvd. lb. .26 —
Dicapryl sebacate, dms., c.l., works. lb. .63 —
dms. l.c.l., works lb. .63½- .64
tanks, works lb. .61 —
2,5-Dichloroaniline, dms., works lb. 83 —
3,4-Dichloroaniline, tech., solid, tanks, frt alld lb. .73 —
o-Dichlorobenzene, dms. c.l., frt. alld. E lb. .12¾ —
dms. l.c.l., same basis lb .13¾- —
tanks, same basis lb .11 —
p-Dichlorobenzene, dms., c.l., f.o.b., works, frt alld E lb. .12 —
dms 2,000 lbs or more, same basis lb. .14½- —
1,4-Dichlorobutane, dms. c.l. or t.l., works lb. .33½- —
dms., l.c.l., or t.l.l. works lb .34 —
tanks, works lb 32 —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd E lb 15½- —
dms., l.c.l., t.t.l. same basis lb .17 —
tanks same basis lb 13 —
Dichloroisocyanuric acid, dms., c.l., t.l. frt equald lb .65 —
dms l.c.l. same basis lb 75 —
Dichloropentanes, dist. dms., c.l., works lb .05 —
dms., c.l., works lb .06 - —
tanks works lb .03 - —
Dichlorophenoxyacetic acid (see 2,4-D)
Dicyclohexylamine, dms. c.l. works lb .54 —
dms. l.c.l., works lb .55 —
tanks works lb .52 —
Dicyclohexyl phthalate, gran., fib dms c.l works frt alld lb. .49½- —
fib, dms., l.c.l., same basis lb. .51½- —
Dicyclopentadiene, dms. c.l., t.o.b. works lb 14½ —
dms., l.c.l., same basis lb .14¾ —
tanks same basis lb .12 —
Didecyl phthalate, dms. c.l. works. lb. 28½ —
dms. l.c.l., same basis lb. 30 —
tankcars, tanktrucks, 2,000 gals. lb. .26 —
tanktrucks, 1,000-1,999 gals, same basis lb 26½- —
Dieldrin, dms. c.l. dlvd. lb 1.85 —
dms. l.c.l dlvd lb 1.90 —
Diethanolamine, dms. c.l. dlvd E lb .27 —
dms. l.c.l. same basis lb .28½- —
tanks same basis lb 24½- —
Diethanolamine lauryl sulfate, dms., c.l. frt alld lb 27½ —
dms. l.c.l. frt alld lb 28½ —
tanks frt alld lb. 26½ —
Diethyl barbituric acid (see Barbital)
Diethyl carbonate, dms. c.l. t.o.b. works lb 47½ —
dms. l.c.l., same basis lb 48½ —
tanks, same basis lb 45 —
Diethyl ethanolamines, dms. c.l., dlvd lb 69½- —
dms. l.c.l., dlvd. lb 71 —
tanks dlvd lb 67 —
Diethyl oxalate, dms., c.l., f.o.b. works lb. .42½- —
dms., l.c.l., same basis lb. .43½- —
tanks, same basis lb. .40 - —
Diethyl phthalate, dms., c.l., dlvd. lb. .29¾- —
dms., l.c.l., dlvd. lb. .31¼- —
tanktrucks, 1,000-1,999 gals, same basis lb. .27¾- —
tankcars, tanktrucks, 2,000-lb. lots, same basis lb. .27¼- —
Diethyl sulfate, dms, c.l., frt. alld. E. lb. .21 - —
dms., l.c.l., frt. alld. E lb. .22½- —
tanks, frt. alld. E lb. .18½- —
Diethyl thiourea, dms., c.l., t.l., works lb. .58 - —
dms., l.c.l., same basis lb. .59 - —
Diethyl toluamide, 90-95% meta isomer dms. c.l. t.l., works, lb. 2.30 - —
5-44 dm lots, works lb 2.35 - —
1-4 dm lots, works lb 2.40 - —
N,N-Diethyl-m-toluidine, tech., liq., tanks, frt alld lb. .83 - —
Diethylamine dms c.l. dlvd E lb. .52 —
dms. l.c.l., same basis lb. .53½- —
tanks, same basis lb. 49½- —
N,N-Diethylaniline dms., c.l., frt. alld E lb. .57 - —
dms., l.c.l., same basis lb. .58 - —
tanks, same basis lb. .55 —
Diethylbenzene, 380 lb. dms., c.l., t.l., frt alld., Zone 1 lb. .17½- —
f.o.b., Zone 2 lb. .18½- —
Diethylbenzene, 380-lb. dms., l.c.l., c.l., f.o.b. Zone 1 lb. .19½- —
f.o.b. warehouse points, Zone 2 lb. .20½- —
Diethylbenzene tankcars, Zone 1 lb. .15 —
Zone 2 lb .16 —
Zone 1 is East of the Rockies, Zone 2, West of the Rockies
Di-2-ethylhexyl adipate (see Di-octyl adipate).
Di-2-ethylhexyl phthalate (see Di-octyl phthalate).
phthalate).
Diethylene glycol dms. c.l. dlvd E. lb. .17¾ —
dms. l.c.l. same basis lb. .19¼- —
tanks same basis lb. .15¼- —
Diethylene glycol diethyl ether, dms., c.l., works lb. .55 - —
dms., l.c.l., works lb. .55¾- —
Diethylene glycol monobutyl ether, c.l., dms., frt. alld. E lb. .30¾- —
dms., l.c.l., frt. alld. E lb. .32¼- —
tanks, frt. alld. E lb. .28¼- —
Diethylene glycol monobutyl ether acetate, dms., c.l., works lb. .30¾- —
dms., l.c.l., works lb. .31½- —
tanks, works lb. .28¾- —
Diethylene glycol monoethyl ether, dms., c.l., dlvd. E lb. .22½- —
dms., l.c.l., dlvd. E lb. .24 - —
tanks dlvd E lb. .20 - —
Diethylene glycol monoethyl ether acetate, dms. c.l., works. lb. .27¼- —
dms., l.c.l., works lb. .28 —
tanks, works lb. .25¼- —
Diethylene glycol monomethyl ether, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks dlvd E lb. .18½- —
Diethylenetriamine dms., c.l., dlvd, E lb. .44 —
dms., l.c.l., dlvd E. lb. .45½- —
tanks, dlvd E. lb. .41½- —
Dietnvistilbesterol USP, bots. 10-kilo lots kilo. 100.00 147.50
bots. 1-kilo lot kilo 110.00 152.50
Digitalis leaves USP dom. dms lb 1.25 —
Digitoxin, USP, bots gram 3.75 4.20
Diglycol laurate dms., ton lots lb. .32½- —
Diglycol stearate, dms., t.l lb. .26 - —
Diglycolic acid bgs c.l. t.l. works. lb. .15½- —
bgs. l.c.l. works lb. .16 - —
Dihexyl sebacate dms. c.l., works. lb. .66 - —
dms., l.c.l., works lb. .67 - —
tanks, works lb. .64 - —
Dihydrazine sulfate, dms., works lb. 1.10 1.25
Dihydrostreptomycin sulfate bulk. gram .03 - —
1,2-Dihydroxy anthraquinone, dms., works lb. 3.45 - —
2,2-Dihydroxy-5-5-dichloro-diphenyl-methane, pure, dms lb. 2.55 - —
Tech., dms., 20,000 lbs or more lb 1.11 - —
dms. 1,050 lbs to 20,000 lbs. lb. 1.13 - —
dms. 150 lbs to 1,050 lbs lb 1.15 - —
Di-isobutyl ketone dms. c.l., dlvd. tanks, dlvd lb. .17 - —
dms., l.c.l., dlvd. lb. .18½- —
tanks dlvd lb. .14½- —
Di-isobutyl phthalate, dms., c.l., dlvd E. lb. .31½- —
dms. l.c.l., same basis lb. .32½- —
tanks, same basis lb. .29 —
Di-isobutylene dms. c.l., dlvd. E lb. .10 —
dms. l.c.l., dlvd E lb. .11½- —
tanks dlvd E lb. .08 —
Di-iso-octyl phthalate, dms., c.l., works lb. .29 - —
dms., l.c.l., same basis lb. .30½- —
tanktrucks, 1,000-1,999 gals. works lb. .27 - —
tankcars tanktrucks, 2,000 gals., works lb. .26½- —
Di-iso-octyl sebacate, dms., c.l., works lb. .62 —
dms., l.c.l., works lb. .61¼- —
tanks works lb. .60 —
Di-isopropanolamine, dms. c.l., dlvd. lb. .23¼- —
dms., l.c.l., same basis lb. .24¾- —
tanks, same basis lb. .20¾- —
Di-isopropylamine dms., c.l., dlvd, E of Rockies lb. .50½- —
dms., l.c.l., same basis lb. .52 - —
tanks, same basis lb. 48 —
Dillweed oil, dom., bots., dms lb. 5.25 - —
Dimethyl anthranilate, cns lb 4.15 - —
Dimethyl dichlorovinyl phosphate, 55-gal dms., dlvd lb 3.50 —
Dimethyl ethanolamine, anhyd., dms., c.l., dlvd E lb. .78 - —
dms., l.c.l., dlvd. E lb. .79½- —
tanks, dlvd E lb. .75½- —
Dimethyl ethanolamine, 70%, dms., c.l., dlvd., 100% basis, contained amines lb. .78 - —
dms. l.c.l. dlvd. 100% basis. lb. .79½- —
tanks, dlvd., 100% basis lb. .75½- —
Dimethyl hydroquinone dms. lb 1.90 2.20
Dimethyl phthalate, dms., c.l., works lb. .29¾- —
dms., l.c.l., works lb. .31¼- —
tanktrucks, 1,000-1,999 gals., same basis lb. .27¾- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .27¼- —
Dimethyl sebacate, dms., c.l., works. lb. 1.31 - —
dms., l.c.l., works lb 1.30 - —
tanks, works lb. 1.28 - —
Dimethyl sulfate, ref. dms., c.l., works lb. .17½- —
ref. dms., l.c.l., works lb. .18½- —
tanks, works lb. .16½- —
Dimethyl sulfide, dms., c.l., works. lb. .17½- —
dms., l.c.l., works lb. .18¼- .19½
tanks, works lb. .15 - —
Dimethyl sulfoxide, dms., c.l., f.o.b. works lb. .35 - —
dms., l.c.l., same basis lb. .37 - .38
tanks, same basis lb. .33 - —
Dimethylamine, 25% soln., dms., c.l., frt. equald, 100% basis lb. .26 - —
dms., l.c.l., frt. equald, 100% basis lb. .28½- —
tanks, frt. equald, 100% basis, lb. .28 - —
40% soln., dms., c.l., frt. equald., 100% basis lb. .35 - —
dms., l.c.l., frt. equald, 100% basis lb. .35½- —
lb. .28 - —
N,N-Dimethylaniline, dms., c.l., frt. alld lb. .28 - —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .26 - —
N,N-Dimethylformamide, dms., c.l., t.l., works lb. .32½- —
dms., l.c.l., works lb. .33 .34
tanks, works lb. .30 - —
2,4-Dinitroaniline, dms., frt. alld lb. .75 - —
Dinitroaniline orange toner, CP, bbls. dlvd E. of Rockies. lb. 1.61 - —
Dinitroaniline orange toner prices 1c. higher W of Rockies.
m-Dinitrobenzene, 89°C., dms. lb. .26 —
2,4-Dinitrochlorobenzene, crystallizing at 46½°C., dms., c.l., frt. alld E lb. .17¼- —
dms., l.c.l. frt. alld E. lb. .17¾- —
tanks, frt. alld. E. lb. .17 —
2,4-Dinitrophenol bbls. lb. .41 —
2,4-Dinitrotoluene, oil, dms. lb. .11 —
Refd. 63°C. dms. lb. .23 —
Dioctyl adipate, dms., c.l., works lb. .42½- —
dms., l.c.l., works lb. .43½- —
tanks, works lb. .40 —
Dioctyl phthalate, dms., c.l., frt. alld. E lb. .29 - —
dms., l.c.l., frt. alld. E lb. .30½- —
tanktrucks, 1,000-1,999 gals., same basis lb. .27 - —
tankcars tanktrucks, 2,000 gals., same basis lb. .26½- —
Dioctyl phthalate prices ¾c. higher in West.
Dioctyl sebacate, dms., c.l., works. lb. .61¼- —
dms. l.c.l. works lb. .62¼- —
dms., l.c.l., works lb. .62¼ —
tanks, works, dlvd. lb. .59¼ —
1,4-Dioxane, dms., c.l., frt. alld. E. lb. .31½- —
dms., l.c.l., frt. alld. E lb. .33 - —
tanks, frt. alld. E lb. .29 - —
Prices in the west are 2c. per lb. higher.
Dipentaerythritol bgs. c.l. t.l., dlvd. E lb. .34 - —
bgs., l.c.l., t.l.l., dlvd. E lb. .35 - —
Dipentene, dest.-dist., dms., c.l., works gal. .58 - —
dms. l.c.l. works lb. .62 - —
dms., l.c.l. ex whse. gal. .78 - —
tankscars, works gal. .41 - —
Steam dist. dms. c.l., works, South gal .72 - —
dms., l.c.l., dlvd. New York gal. .91 - —
tanks, works, South lb. .55 - —
Dip oil (see Tar acid oil)
Diphenolic acid 1,000-lb or more, bgs, works lb. .75 - —
Diphenolic polyether acids, 1,000-lb. or more, bgs., works lb. 1.00 - —
Diphenyl, bgs., c.l. t.l., works lb. .16¾- —
bgs., l.c.l., works lb. .18½ —
tanks, works lb. .15¾ —
Diphenyl oxide perfume grade, cns. lb. .55 .70
Diphenyl phthalate, dms. c.l., works. lb. .52 - —
dms., l.c.l., works lb. .54 - —
Diphenylamine, refd. flake, bgs., c.l., works, frt. equald lb. .32 —
bgs., l.c.l., same basis lb. .34 —
Refd., fused tanks same basis, lb. .29 —
Refd. diphenylamine in dms. ½c per lb higher
Diphenylguanadine, bgs., dms., ton lots, frt. alld lb. .51 - —
bgs., smaller lots, frt. alld lb. .52 - —
Diphenylhydantoin-sodium, USP, dms lb. 5.00 5.60
Dipropylene glycol, dms. c.l., frt. alld lb. .17 —
dms. l.c.l. frt alld. lb. .18½ —
tanks, frt alld lb 14¼ —
Dipropylene glycol prices 1c. higher in West.
Dipropylene glycol methyl ether, dms. c.l., dlvd E lb .20 —
dms. l.c.l. same basis lb .21½- —
tanks, same basis lb .18½- —
Dithiodibenzoic acid, dms. 1,000-lb lots, works lb. 1.80 - —
Di-o-tolylguanidine, dms., ton lots, frt. alld lb. .71 - —
dms., smaller lots, frt. alld lb. .72 - —
Di-o-tolylthiourea, tech. solid, dms., c.l. t.l., frt alld lb. .55 - —
Divinylbenzene, 20-25%, dms., c.l., works, frt equald lb. .20 - —
dms., l.c.l. same basis lb. .21 - —
tanks, same basis lb. .19 - —
50-60% dms. c.l. works, 100% basis lb. 1.00 - —
dms. l.c.l. works, 100% basis, lb 1.05 - —
tanks same basis lb .90 —
Dodecenyl succinic anhydride, dms. c.l., t.l., dlvd, E lb. .50 - —
dms, l.c.l., t.t.l. same basis lb. .52 - —
Dodecylbenzene, dms. c.l., f.o.b., works, frt equald lb .134 - —
dms l.c.l. same basis lb .144 —
tanks, same basis lb .11 - —
Dodecylphenol c.l. frt. alld lb. .22½ —
dms., l.c.l., same basis lb. .23½- —
tanks, same basis lb. .20 —
Dodecylphenol prices on shipments to Western States are 2c per pound higher
Dyes, coaltar certified colors for food, drugs and cosmetics, 500-lb. and 1-lb lots, dlvd.:
Blue, FD&C, No 1 lb. 15.65 17.60
No 2 lb. 15.65 17.60
Green, FD&C, No. 1 lb. 15.65 17.60
No 2 lb. 19.60 22.85
No 3 lb. 31.30 35.90
Red, FD&C, No. 2 lb. 3.30 4.10
No 3 lb. 19.60 22.85
No 4 lb 5.55 7.50
Dyes, coaltar, certified colors for drugs and cosmetics 500-lb and 1-lb lots, dlvd:
Yellow, FD&C, No. 5 lb. 3.30 - 4.10
No 6 lb 3.30 4.10
Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb. and 1-lb. lots, dlvd.:
Black, D&C, No. 1 lb. 10.50 10.95
Brown, D&C, No. 1 lb. 15.65 16.10
Green, D&C, No. 5 lb. 15.65 16.10
No 6 lb. 15.65 16.10
No 7 lb. 14.35 14.80
Orange, D&C, No. 3 lb. 10.50 10.95
No 4 lb 19.60 20.05
No 5 lb 3.90 4.25
Red, D&C, No. 17 lb. 10.50 10.95
No 18 lb. 23.60 24.00
No 19 lb. 15.00 15.45
No 21 lb. 3.90 4.35
No 22 lb. 10.50 10.95
No 28 lb. 24.15 24.60
No 33 lb. 17.00 17.45
Violet, D&C, No 2 lb. 15.65 16.10
Yellow, D&C, No. 7 lb. 10.50 10.95
No 8 lb 10.50 10.95
No 10 lb. 13.05 13.50
No 11 lb. 13.05 13.50

Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb. and 1-lb. lots, dlvd.:

Blue, Ext., D&C, No. 1	lb.	15.65	16.10
Green, Ext., D&C, No. 1	lb.	15.65	16.10
Red, Ext., D&C, No. 1	lb.	13.05	13.50
Yellow, Ext, D&C, No. 1	lb.	10.50	10.95

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color index scale or prototype), contract dlvd. No.

11110	Brilliant scarlet BN	lb.	1.79	—
13390	Fast blue SR	lb.	1.57	—
14025	Yellow 2G	lb.	1.26	—
14030	Orange R, extra, conc.	lb.	1.64	—
14645	Chrome black T	lb.	.77	—
14720	Rubine XX, conc	lb.	1.76	—
15510	Orange Y, extra conc.	lb.	.83	—
15575	Orange RR	lb.	.99	—
15620	Fast Red A, conc.	lb.	1.77	—
15705	Chrome blue black R, conc.	lb.	1.12	—
16150	Scarlet 2RL	lb.	1.22	—
16255	Brilliant scarlet 3RN, conc.	lb	1.26	—
16230	Fast light, orange 2G	lb.	1.39	—
17590	Brown PG	lb.	3.00	—
18050	Phloxine 2G	lb.	1.16	—
18055	Fuchsine 6B	lb.	1.55	—
18965	Fast yellow 2G	lb.	2.32	—
19140	Yellow XX	lb.	2.48	—
19555	Yellow NN, conc.	lb.	3.67	—
20170	Brown Y	lb.	1.33	—
20470	Blue black, extra, conc.	lb.	1.51	—
21010	Brown, RX, conc	lb.	1.42	—
22240	Scarlet B	lb	2.81	—

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour index scale of prototype), contract, dlvd. No.

22310	Red FC	lb.	1.57	—
22311	Brown MCW	lb.	1.59	—
22610	Blue 2B, extra conc	lb.	1.51	—
23500	Red 4BX, conc.	lb	1.80	—
24410	Sky blue FF, extra, conc.	lb.	1.95	—

Dyes, coaltar for general use in cloth dyeing numbers are those of the Color Index scale or prototype), contract dlvd. No.

24895	Brilliant yellow, conc.	lb.	3.27	—
26360	Navy blue 3R, conc.	lb.	1.84	—
26695	Black F, conc.	lb.	2.30	—
26900	Milling Red 3R, conc	lb.	2.24	—
27075	Neutral black 2B, conc	lb.	2.75	—
27720	Gray L	lb.	2.18	—
29185	Fast scarlet 4BNC	lb.	2.23	—
30015	Diazo black VJ conc.	lb.	2.48	—
30045	Yellow brown K, extra	lb.	1.45	—
30235	Black EB, 200%	lb.	1.33	—
30295	Green BY conc.	lb.	1.07	—
35660	Brown B	lb.	2.89	—
37565	Naphthol SWF	lb.	1.85	—
40000	Yellow 2G	lb.	1.44	—
41000	Yellow OX	lb	2.45	—
42000	Green V crystals	lb.	2.73	—
42040	Brilliant green G crystals	lb.	3.62	—
42090	Blue EG	lb.	1.85	—
42100	Milling green 6B, conc.	lb.	4.78	—
42640	Violet 4BXN	lb	2.43	—
43830	Brilliant blue BBG	lb.	2.44	—
44045	Blue B, extra conc.	lb.	3.61	—
45170	Red BX	lb.	4.76	—
50415	Nigrosine SSJ	lb.	1.03	—
52015	Blue GXX	lb.	2.54	—
58005	Alizarin red SC	lb.	3.64	—
59700	Golden orange GFD, single paste	lb.	2.70	—
59710	Flaming orange 6RD double powder	lb.	4.90	—
59800	Dark blue BO, single paste.	lb.	2.28	—
59825	Jade green NC supra, double paste	lb.	1.75	—
61570	Alizarin green CG extra	lb	3.81	—
63010	Alizarin blue SAPG	lb	3.90	—
63615	Alizarin blue black B	lb	3.26	—
69825	Blue BLFD double paste	lb.	2.76	—
70800	Brown BR single paste	lb.	2.03	—

Dyes, coaltar oil-soluble, 100-lb. drums, dlvd. No

12140	Oil scarlet BL	lb	1.87	—
12055	Oil orange 7078 V	lb	1.38	—
26120	Oil red N 1700	lb	1.94	—
42535B	Methyl violet base	lb	1.88	—
44045B	Victoria blue base	lb	4.06	—
50415B	Oil black 8603	lb	80	—
61565	Alizarin cyanine green base.	lb.	6.13	—

Dyes, coaltar, spirit soluble, 100 lb. dms., dlvd., Black RB

		lb.	3.89	—
	Spirit brown GN	lb.	5.30	—
	Spirit orange R conc.	lb.	5.87	—
	Spirit red B conc.	lb.	6.41	—
Pr	517 Spirit yellow 2R conc	lb	4.62	—
Pr	554 Spirit blue THN	lb	5.06	—

E

Echinacea root, bls.	lb	1.25	—
Elm bark grinding, bls.	lb	.30	.32
Powd., bbls., kgs	lb.	60	—
Select, bundles	lb	75	—
Emetine hydrochloride, USP bots	oz	48.40	—
Endrin, tech, dms., 100-lbs or more, 100% basis, dlvd	lb.	2.77	—
Eosin red toner bbls, works	lb	1.95	—
Ephedrine syn., USP, anhyd., bots. 100-oz. lots	oz.	.98	1.00
hydrous bots, 100-oz lots,	oz.	.92	—
Ephedrine hydrochloride NF, dms., 100-oz., f.o.b. works	oz.	.75	—

Ephedrine sulfate, USP, cryst., dms., 100-oz f.o.b works

	oz	73	—
USP powd., dms., 100-oz., same basis	oz	73	—
Epichlorohydrin, dms., c.l., dlvd	lb	29½	—
dms., l.c.l., dlvd.	lb	31	—
tanks, dlvd.	lb	27	—
Epinephrine base, syn. USP bots. 100 gram lots	gram	58	—
Epsom salt (see Magnesium sulfate)			
Erigeron oil, cns	lb	11.00	—
Ergot, NF, dms., tin-lined	lb	2.00	2.50
Eserine salicylate, bots	oz.	34.50	40.00
Eserine sulfate bots	oz	86.00	—
Ester gum, gum-rosin type, dms. c.l. dlvd. Ill., Md. Ky., E. States, Minneapolis, N. C., Ohio St. Louis, St. Paul, Va., W. Va	lb	18½	—
Wood-rosin type dms. c.l. same basis	lb	18½	—
Ether (see specific product)			
Ethyl acetate, nat., ferment, 85-88%, dms., c.l. dlvd	lb	13	—
dms., l.c.l., dlvd	lb	16½	—
tanks dlvd	lb	12½	—
95-98% dms. c.l., dlvd.	lb	15¼	—
dms. l.c.l., dlvd	lb	16¾	—
tanks dlvd	lb	13¾	—
99%, dms., c.l., dlvd	lb.	15½	—
dms. l.c.l., dlvd	lb	17	—
tanks, dlvd	lb	13	—
syn., 95-88%, dms., c.l., dlvd	lb.	.15	—
dms., l.c.l., dlvd	lb	16½	—
tanks, dlvd.	lb.	12½	—

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acetic acid
Organic synthesis
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acetic anhydride
Acetylating agent
Dehydrating agent in nitration and sulfonation reactions, etc.

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Ca or Na salt used as bread mold inhibitor

propionic anhydride
Acylating agent
Intermediate

n-butyric acid
For the preparation of butyric esters useful in formulating perfumes and flavorings

n-butyric anhydride
Acylating agent
Intermediate

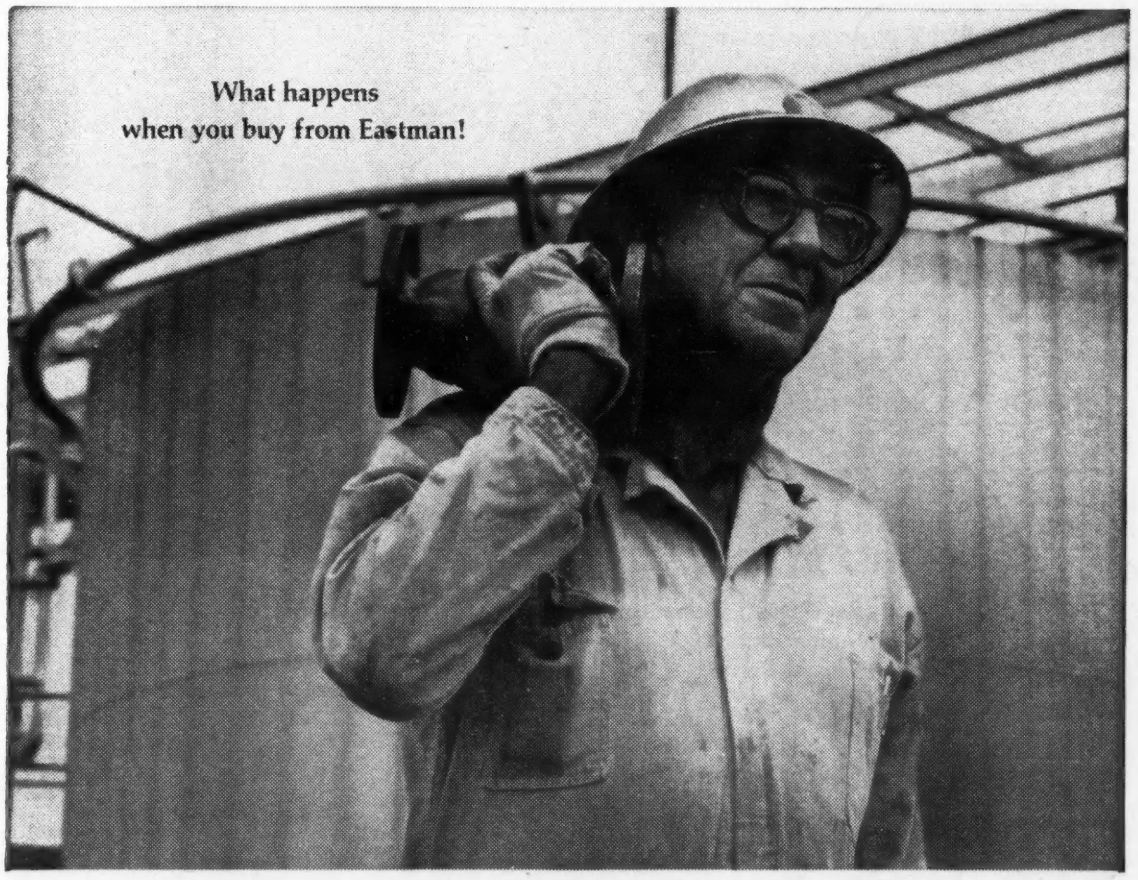
isobutyric acid
As a starting point for the synthesis of plasticizers, perfume materials and lacquer solvents

isobutyric anhydride
For the preparation of aromatic esters for perfumes

2-ethyl hexoic acid
Pb, Mn and Co salts are used as oil paint driers; Zn and Na salts as emulsifying and dispersing agents

crotonic acid
A versatile and reactive intermediate

For properties and shipping information on these and other Eastman products, see **Chemical Materials Catalog**, page 363 or **Chemical Week Buyers' Guide**, page 107



The case of the culprit catalyst

"The phone was ringing when I walked into the office on that Monday morning," mused one of our regional sales managers.

"The customer's greeting was rather cheerful considering the circumstances he then proceeded to relate.

"In his own words it went something like this: 'We have a new process technique out here, but we're not overly proud of it. We're making aluminum acetate...using as reactants *your glacial acetic acid* and one of our new aluminum storage tanks.'

"I was glad he still had a sense of humor but wished that I had taken the day's vacation, which was briefly considered late Sunday.

"Well, he went on to relate that their yields on a process (not the new one he had just mentioned) in which our acetic acid was one of the reactants had dropped off alarmingly. While checking out process controls and materials they found aluminum acetate in the acetic acid storage tank.

"Under the circumstances his conclusion that our acid contained a catalyst for the unwanted reaction seemed even to me a reasonable hypothesis.

"Arrangements were made to send a large sample to our Acid Division Control Laboratories for complete analysis, and I held my breath several days until the final report came in.

"A metal catalyst was present, but one that for a number of good reasons we avoid like the plague. Armed with the information that it was extremely unlikely that contamination occurred prior to unloading, we dispatched a technical service man to the customer's plant to help find out where it was coming from.

"And with the aid of an improperly functioning check valve, he did. Seems that the acetic acid storage tank was connected directly to a reactor in which the metal catalyst was (as it should have been) present in salt form. Trace amounts were reaching the storage tank...and you know the rest.

"Fortunately, tank damage was not extensive, and by filtering, they were able to make use of the acid containing the aluminum acetate. After cleaning out the tank it was filled back up... with a new supply of our pure glacial acetic acid.

"Oh yes, a brand new check valve was installed, too."

The normal way we keep our customers happy? If necessary, yes. But more an example of the interested personal service you get when you buy from Eastman.

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West Coast: Wilson & Geo. Meyer & Company, San Francisco, Los Angeles, Portland, Salt Lake City, Seattle

Ethyl acetate syn. 95-98%, dms., c.l., divd	lb.	.15¼-	—
dms. l.c.l., divd	lb	.16¾-	—
tanks divd	lb	.12¾-	—
99% dms c.l. divd	lb	.15½-	—
dms. l.c.l., divd	lb	.17	—
tanks divd	lb	13	—
Ethyl acetoacetate, dms., c.l., divd.	lb	58½-	—
dms. l.c.l. divd.	lb.	.60	—
tanks divd	lb	.56	—
Ethyl acrylate dms., c.l., t.l., divd.	lb.	.34¾-	—
dms., l.t.l., divd	lb.	.35¾-	—
tanks, divd.	lb.	.32¼-	—
Ethyl alcohol 190 pf. USP, tax paid dms c.l. divd E of Rockies	gal	20.63	—
dms. l.c.l. same basis	gal	.20 73	-20.84
USP, tax-free, dms., c.l., divd. E. of Rockies	gal.	.68	—
dms. l.c.l. same basis	gal	78	.89
tanks same basis	gal	52	—
Ethyl alcohol, absolute 200 pf., tax paid, dms. divd E of Rockies	gal	21 75	—
dms. l.c.l., same basis	gal.	21 85	-21.96
tanks same basis	gal	21 59	—
Ethyl alcohol denatured (see Denatured alcohol ethyl)			
Ethyl aminobenzoate USP (see Benzocaine).			
Ethyl amyl ketone dms. c.l., divd.	lb	.20	—
dms. l.c.l. same basis	lb.	.21½	—
tanks, same basis	lb	17½	—

Ethyl benzoate, beta	lb.	.78	- 1.00
Ethyl bromide, tech., 98%, dms., c.l., frt. alld. E	lb.	.43	—
dms., l.c.l., frt. alld. E	lb.	.45	—
tanks, frt. alld. E	lb.	.40	—
2-Ethyl butyl alcohol, dms., c.l., works	lb.	.30	—
dms., l.c.l., works	lb.	.30¾-	—
tanks, works	lb.	.28	—
Ethy butyl ketone, dms., c.l., t.l., works	lb.	.36	—
dms., l.c.l., t.t.l. works	lb.	.36¾-	—
tanks, works	lb.	.34	—
Ethyl butyrate, dms., works	lb.	.85	- 1.00
Ethyl carbamate (see Urethane)			
Ethyl cellulose, vis. 4 cps., bgs., 5,000-lb lots or more, rt. alld E	lb.	.73	—
bgs. smaller lots frt alld E	lb.	75	—
vis. 10, 20, 50, 100, 150 cps., bgs., 5,000-lb. lots or more, frt. alld. E	lb.	.68	—
bgs., smaller lots, frt. alld E	lb.	.70	—
Ethyl chloride, tech., cyls., works	lb	20	22
dms., works	lb	18	20
tanks, works	lb	10	—
Ethyl cinnamate, ens	lb.	3.35	- 3.50
Ethyl ethanolamines, mixed, dms., c.l., divd E	lb.	43½-	—
dms., l.c.l., divd E	lb	44½-	—
tanks, divd E	lb	41½-	—

Ethyl ether, absolute, ACS, dms	lb.	.27	—
Anesthesia, USP dealers, 1-lb cns	lb	1.01	—
½-lb. cns	lb	1.09	—
¼-lb cns.	lb	1.21	—
Indust., dms. c.l., divd.	lb.	.13½-	—
dms., l.c.l., divd. E	lb.	.15	—
tanks, divd E	lb.	.11	—
2-Ethyl hexoic acid dms., c.l., t.l., divd E	lb.	.37	—
dms., l.c.l., t.t.l., divd. E	lb.	.38½-	—
tanks, divd E	lb.	34½	—
2-Ethyl hexoic acid 1c. higher W. of Rockies.			
2-Ethylhexyl acrylate, dms., c.l., t.l., straight or mixed frt. alld. E	lb.	.39½-	—
dms., l.t.l., same basis	lb.	.40½-	—
tanks, same basis	lb.	.37	—
2-Ethylhexyl alcohol, dms., c.l., divd. E	lb.	.23¾-	—
dms., l.c.l., divd. E	lb.	.25¼-	—
tanks, divd. E	lb.	.21¼-	—
Ethyl iodide chys. works	lb.	3.30	—
Ethyl methacrylate dms. c.l., frt. equald	lb	.52	—
dms., l.t.l. frt equald	lb	52½-	—
tanks, frt. equald	lb	50	—
Ethyl morphine hydrochloride, USP	ozs.	11.88	—
Ethyl oenanthate, dms	lb	1.05	1.30
Ethyl oxalate (see Diethyl oxalate).			
Ethyl silicate dist (see Tetraethyl orthosilicate).			
Ethyl silicate 40% available SiO_2, dms., c.l., divd. E	lb.	.49	—
dms., l.c.l., divd. E	lb.	.50½-	—
tanks, divd. E	lb.	.47	—
N-Ethyl-a-naphthylamine, dms. works	lb	1.04	—
N-Ethyl-m-toluidine tech., liq., tanks frt alld	lb	.83	—
N-Ethyl-o-toluidine, bbls	lb.	.88	—
Ethylamine (see Mono-, Di-, or Tri-)			

N-Ethylaniline, dms., c.l., frt. alld.	lb.	.57	—
dms., l.c.l., frt. alld	lb.	.59	—
tanks, frt. alld	lb.	.55	—
Ethylbenzene, 99% dms., c.l., t.l., frt. equald	lb.	.14	—
dms., l.c.l., same basis	lb.	.16	—
tanks, same basis	lb.	.11½-	—
Ethylene, contract refy gate	lb	.0475-	.052
Ethylene dibromide dms., c.l., frt. equald	lb.	.30½	—
dms., l.c.l. frt equald	lb	.31½	—
tanks, frt equald	lb	.28½	—
Ethylene dichloride dms. c.l. divd.	lb	.11½-	—
dms., l.c.l., same basis	lb	.13	—
tanks, same basis	lb	09	—
Ethylene dichloride prices W. of Rockies, 1c per lb higher			
Ethylene glycol indust dms., c.l., divd E	lb.	.16	—
dms., l.c.l. same basis	lb.	.17½	—
tanks, same basis	lb	.13½	—
Ethylene glycol monobutyl ether, dms. c.l. divd E	lb.	.22	—
dms. l.c.l., divd E	lb.	.23½	—
tanks, divd E	lb	19½	—
Ethylene glycol monoethyl ether, dms c.l. divd E	lb	.21	—
dms., l.c.l., divd E	lb.	.22½	—
tanks, divd E	lb.	.18½	—
Ethylene glycol monoethyl ether acetate dms c.l. divd	E lb	.19½	—
dms., l.c.l., divd. E	lb.	.2	—
tanks, divd E	lb.	.17	—
Ethylene glycol monomethyl ether, dms c.l. divd E	lb	.21	—
dms., l.c.l., divd E	lb	.22½	—
tanks, divd E	lb.	.18½	—
Ethylene glycol monomethyl ether acetate, dms., c.l., works	lb	.29	—
dms., l.c.l., works	lb.	.29¾-	—
tanks, works	lb.	.27	—
Ethylene glycol monostearate, flake, 150-lb ctn	lb.	.33	—
Ethylene oxide dms. c.l. divd E	lb.	.21½	—
dms., l.c.l., divd E	lb.	.24½	—
tanks, divd E	lb.	.15½-	—
Ethylene trichloride (see Trichloroethylene)			
Ethylenediamine 85-88%, dms. c.l., divd E., 100% basis	lb.	.42	—
dms l.c.l. divd E 100% basis	lb	43	—
tanks divd E., 100% basis	lb	40	—
Ethylvanillin, 100-lb. fib. dms., 500-lb.	lb.	6.75	—
less than 500-lb.	lb.	7.40	—
Eucalyptol, USP, cns, dms	lb	85	1.40
Eucalyptus oil NF rectified, 70-75% dms	lb.	.45	—
NF rectified, 80-85% dms	lb	53	.62
Eugenol, tech., dms	lb.	0.00	—
USP, dms.	lb.	1.90	—
Euphorbia herb, bls	lb	.12	.15

F

F salt paste, tech., dms., works	lb.	2.50	—
Fennel oil, sweet, USP, cns.	lb.	2.60	—
Fennel seed Argentine, bgs	lb	.16	—
French, light, bgs	lb	16	—
Indian, light, bgs	lb.	.17½-	—
Rumanian bgs	lb.	.14	—
Yugoslav light bgs	lb.	.16½-	—
Fenugreek seed, Moroccan, bgs	lb.	.09	—
Ferric chloride, anhyd., tech., 350-lb. dms., c.l., works	100 lbs.	8.00	—
dms., l.c.l., works	100 lbs.	9.00	—
Indust., cryst., bbls., c.l., works,	100 lbs.	5.25	- 6.75
bbls. l.c.l., works	100 lbs	5 75	7 25
42° Be. photo grade, cbys., c.l., works	100 lbs.	7.25	8.25
sewage grade, tanks, frt equald, 100% basis	100 lbs	4.00	—
USP cryst. dms t.l works	lb	08½-	—
Ferric citrate, gran., dms.	lb.	.86	—
Ferric hypophosphite, NF, 175-lb. dm	lb.	4.25	—
Ferric naphthenate, liq., 6% Fe, dms. frt alld	lb.	.28¼-	—
Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works E	lb.	1.30	—
Ferric oxides (see iron oxides)			
Ferric phosphate, NF, soluble, gran pearls, cs	lb.	.72	.75
Ferric pyrophosphate, NF VII soluble, gran. pearls, 225-lb dm.	lb.	.79	—
Ferric resinate, dms., ton lots, frt. alld	lb.	.45	—
Ferric stearate dms. c.l. frt alld.	lb.	.39	—
dms., l.c.l., frt alld	lb.	40	44
Ferric sulfate, partly hydrated, bgs. c.l., works	ton.	35.25	—
bgs., l.c.l., works	ton.	36.25	-42.25
bulk, c.l., works	ton.	33.25	—
Ferric-amonium citrate, NF, brown, gran., 100-lb. dms	lb.	.68	—
NF, green, gran., 100-lb. dms., frt. equald	lb.	.68	—
Ferric-ammonium oxalate, fine gran., dms	lb.	.27½-	.29½
Ferric-potassium oxalate, fine gran., 250-lb. dm., f.o.b. works	lb.	.32½-	—
Ferric-sodium oxalate, fine gran., dms	lb.	.27½-	.29½
Ferrous gluconate, USP, 200-lb dm., frt. equald	lb.	.96	—
Ferrous sulfate, gran. bgs. c.l., works	ton.	34.50	—
bgs., l.c.l., divd Metropolitan area 100 lbs		3.35	4.25
bbls., c.l., works	ton.	40.00	—
bulk, c.l., works	ton.	27.00	—
USP cryst., bbls., dms	lb	09½-	.10
Fir balsam, Canada, bbls	gal.	34.00	35.00
Oregon bbls	gal	3.40	4.64
Fir oil, Canada, cns	lb.	1.70	1.75
Fish oil, refd., alkali, dms	lb.	.1330-	.1380
Kettle-bodied, dms.	lb.	.1560-	.1610
Light-pressed, dms.	lb.	.1180-	.1230
tanks	lb.	.1030-	—
Fishliver oil, nat., high potency, 100,000 to 1,500,000 A units per gram dms 1,000,000 units.		.12	—
Fishmeal, dom., menhaden 60% protein, grd., bgs., Atlantic and Gulf coasts	ton.	105.00	—
Fishscrap, dom., menhaden, dried, 60% protein, grd. bgs., Atlantic and Gulf coasts.	ton.	101.00	—
Fleaseed (see Psyllium seed)			
Folic acid USP, nots fib dms. kilo lots or more gram.		.25	—
10% feed grade fib dms. 3 kilos or more kilo.		30.00	44.00
Formaldehyde, 37% (inhibited, 12 to 15% methanol), USP, dms., c.l. divd	lb.	.0695-	—
tanks, divd.	lb.	.0405-	—
Formaldehyde, methanol-free (uninhibited), tanks divd	lb.	.0375-	—
Formic acid 85% chys. c.l. works.	lb.	.1570-	—
chys., l.c.l., works	lb.	.1620-	.1720
90%, chys., c.l., works	lb.	.1625-	—
chys., l.c.l., works	lb.	.1675-	.1775
Fringetree bark, bls	lb	65	70
Fumaric acid tech. 250-lb dms., c.l., frt. equald	lb	.23¼	—
dms., l.c.l., frt equald	lb	24¾-	—
Fumaric acid in bags ½c. per lb		ess	

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6078

Furfural dms., c.l., works	lb.	.13	—
dms., l.c.l., works	lb.	.14	—
tanks, dlvd. E	lb.	.11½	—
tanks, dlvd. W	lb.	.12½	—
Furfuryl alcohol, cns., works	lb.	.28	—
dms., c.l., t.l., Newark, N. J.	lb.	.19½	—
dms., l.c.l., l.t.l., Newark, N. J.	lb.	.20½	—
dms., c.l., t.l., Memphis, Tenn.	lb.	.18	—
dms., l.c.l., l.t.l., Memphis, Tenn.	lb.	.19	—
tanks, dlvd. E. of Denver	lb.	.175	—
Fusel oil, refd. dms., c.l., dlvd	lb.	.18	—
dms., l.c.l., dlvd.	lb.	.19½	—
tanks, dlvd.	lb.	.15½	—

G

G salt, bbls., frt. alld., 100% basis	lb.	.73	—
Gallic acid NF VII, bbls., 1,000-lb. lots	lb	2.00	—
bbls. smaller lots	lb	2.02	2.22
Gallic acid, tech., bbls., 1,000-lb. lots	lb.	1.78	—
bbls., smaller lots	lb	1.80	2.00
Gamma acid dry grd., bbls., frt. alld	lb	1.73	—
Gammapicoline (see g-picoline).			
Garlic oil, dom. bots.	oz.	4.75	6.05
Imp. bots.	oz.	4.50	5.00
Gaultheria oil (see Wintergreen oil).			
Gelatin edible 75 AOAC test, bbls., c.l., dlvd	lb.	.55	—
150 AOAC test, bbls., c.l. dlvd.	lb.	.64	—
200 AOAC test, bbls. c.l. dlvd.	lb.	.70	—
225 AOAC test, bbls. c.l., dlvd.	lb.	.74	—
275 AOAC test, bbls., c.l., dlvd.	lb.	.82	—
Gelsemium root, bls.	lb.	.30	.35
Gentian root bls.	lb	.24	—
Grd., bbls. bxs	lb	.30	—
Powd. bbls bxs	lb.	.30	—
Geraniol extra cns. dms.	lb	1.75	2.40
Soap grade dms	lb	.90	1.75
Standard cns., dms.	lb.	1.65	—
Synthetic dms	lb	1.30	—
Geranium oil, Algerian, cns	lb.	19.00	-22.00
Bourbon, cns.	lb.	20.00	-22.00
Turkish (see Palmarosa oil).			
Geranyl acetate cns	lb	1.90	2.70
Synthetic dms	lb.	1.45	—
Ginger oil dist. bots.	lb.	11.50	-14.00
Ginger oleoresin NF from African root, bots	lb.	4.25	5.00
NF from Jamaican root, bots.	lb.	7.75	—
Ginger root, Cochin, bgs	lb.	.19½	—
Jamaican, No. 3, bgs	lb.	.28	—
Nigerian, split, bgs	lb.	.20	—
Sierra Leone, bgs	lb.	.35	—
Glauber's salt (see Sodium sulfate).			
Gluconic acid tech. 50% dms., c.l., t.l., f.o.b. works	lb.	.20	—
dms., l.c.l., f.o.b. works	lb.	.21	—
tanks, f.o.b works	lb.	.17	—
Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd.	lb.	.16	—
131 jellygrams, bgs., c.l., same basis	lb.	.16½	—
164 jellygrams, bgs., c.l., same basis	lb.	.18½	—
Glue, bone, extracted, dry bone, 191 jellygrams, bgs., c.l., same basis	lb.	.19½	—
222 jellygrams, bgs., c.l., same basis	lb.	.21	—
Glue, bone, green, 40 jellygrams, bgs., c.l., same basis	lb.	.16	—
86 jellygrams, bgs., c.l., same basis	lb.	.16	—
115 jellygrams, bgs., c.l., same basis	lb.	.16½	—
Glue, bone, green, 135 jellygrams, bgs., c.l., same basis	lb.	.17½	—
164 jellygrams, bgs., c.l., same basis	lb.	.18½	—
180 jellygrams, bgs., c.l., same basis	lb.	.19½	—
200 jellygrams, bgs., c.l., same basis	lb.	.20½	—
Bone glue, l.c.l., prices 2c. higher.			
Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd	lb.	.18	—
95-149, bgs., c.l., dlvd	lb.	.19	—
122-149, bgs., c.l., dlvd	lb.	.20½	—
150-177, bgs., c.l., dlvd	lb.	.22½	—
178-206, bgs., c.l., dlvd	lb.	.25	—
Glue, hide, 207-236, bgs., c.l., dlvd	lb.	.28	—
237-266, bgs., c.l., dlvd	lb.	.30½	—
267-298, bgs., c.l., dlvd	lb.	.32½	—
299-330, bgs., c.l., dlvd	lb.	.34½	—
331-362, bgs., c.l., dlvd	lb.	.36½	—
363-394, bgs., c.l., dlvd	lb.	.38	—
Glue, hide, 395-427, bgs., c.l., dvld.	lb.	.40	—
428-460, bgs., c.l., dlvd	lb.	.42	—
461-494, bgs., c.l., dlvd	lb.	.44	—
495-529, bgs., c.l., dlvd	lb.	.46	—
Hide glue, l.c.l., prices 2c. higher.			
l-Glutamic acid, 99½%, fib. dms., 100-lb. lots, frt. alld	lb.	1.80	—
fib. dms., 25-lb. lots, frt. alld.	lb.	1.88	—
l-Glutamine, bots., 1-9 kilo lots,	kilo.	150.00	-300.00
Bots., 50-kilo lots	kilo.	100.00	—
Bots., 500-kilo lots	kilo.	75.00	—
Glycerine, dom., nat., crude, saponification 88%, tanks dlvd.	lb.	.13	—
nat., crude, soaplye, 80%, tanks, dlvd	lb.	.14	—
nat., refd., USP, CP, 99%, dms., c.l., dlvd	lb.	.28⅞	—
dms., l.c.l., dlvd	lb.	.29⅜	—
tanks, dlvd.	lb.	.27⅛	—
Glycerine, dom. nat., refd., USP, CP, 96%, dms., c.l., dlvd	lb.	.28	—
dms., l.c.l., dlvd	lb.	.28¾	—
tanks, dlvd.	lb.	.26¼	—
nat., high gravity, dms., c.l., dlvd	lb.	.28¾	—
dms., l.c.l., dlvd	lb.	.29½	—
tanks, dlvd.	lb.	.27	—
Glycerine, dom., syn., dms., c.l., dlvd	lb.	.29	—
dms., l.c.l., dlvd	lb.	.29¾	—
tanks, dlvd.	lb.	.27¼	—
Imp. nat., crude, soapiye, 80%, c.i.f.	lb.	.14	—
Glycine (see Aminoacetic acid)			
Glycerol (see Glycerine)			
Glycolic acid (see Hydroxyacetic acid).			
Graphite, 95-97%, powd., bgs., fib. dms., ex whse	lb.	.29	.31⅛
Graphite, flake, No. 1, 90-95%, bgs., fib. dms., ex whse	lb.	.29	.31
No 2, 90-95% bgs., fib. dms., ex whse	lb.	.29	.31
Glycolonitrile, 70%, aqueous, dms., c.l., t.l., works	lb.	.40	—
dms., l.c.l., same basis	lb.	.42	—
tanks, same basis	lb.	.39	—
Glyoxal, 30%, dms., c.l., works	lb.	.20½	—
dms., l.c.l., works	lb.	.21¼	—
tanks, works	lb.	.18	—
Golden seal root, NF, tested, bls.	lb.	2.90	- 3.00
Gramicidin, 1 to 5 kilos, f.o.b. works,	gram.	4.25	—
Grapefruit oil, dms	lb.	2.75	- 2.90
Graphite, amorp., powd., bgs., fib. dms., ex whse	lb.	.06	- .09⅛
Cryst., 88-90%, powd., bgs., fib. dms., ex whse	lb.	.19	- .21⅛
90-92%, powd., bgs., fib. dms., ex whse	lb.	.21	- .24⅛
Grease, white, choice all hog, tanks, dlvd.	lb.	.09⅜	—
Yellow, tanks, dlvd.	lb.	.07⅜	—
Grease oil, No. 1, dms., c.l., f.o.b. Chicago	lb.	.12½	—
dms., l.c.l., same basis	lb.	.14½	—
tankcars, same basis	lb.	.11	—
Extra winter, strained, dms., c.l., Chicago	lb.	.15½	—
dms., l.c.l., same basis	lb.	.17½	—
tankcars, same basis	lb.	.14	—
Grease oil, prime, burning, dms., c.l., same basis, Chicago	lb.	.17½	—
dms., l.c.l., same basis	lb.	.19½	—
tankcars, same basis	lb.	.16	—
Other areas ¾c. higher, except Texas and West Coast, 1¼c. higher.			

GREEN PIGMENTS

Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green

Grindelia robusta herb, bls	lb.	.40	—
Guaiacol NF cryst. dms, tins	lb	2.10	2.15
liq., cbys., dms	lb.	2.30	- 2.40
Guaiacwood oil cns.	lb.	.65	.80
Guaiacol carbonate NF VII, dms	lb	3.40	3.45
Guar gum, edible, bgs., c.l., f.o.b. shipt. pt	lb.	.38	—
bgs., l.c.l. same basis	lb.	.40	- .42
Indust., bgs., c.l., same basis	lb.	.32	—
Tech., bgs., c.l., same basis	lb.	.30	—

GUMS

Gum quotations are listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum.

H

H acid, dry, bbls. c.l., frt. alld., 100% basis	lb.	1.00	—
bbls., l.c.l., same basis	lb.	1.03	—
Hansa yellow 10 G, bbls., dlvd. E. of Rockies	lb.	2.45	—
Hansa G yellow, pigment, bbls.	lb.	2.20	—
Hawthorn berries, bgs.	lb.	.18	- .20
Heliotropin, 100-lb lots, dms.	lb.	3.60	- 3.40
Hellebore root dom., green, bls	lb.	.70	- .75
Helonias root, bls.	lb.	1.50	—
Hemlock oil, cns.	lb.	2.55	3.00
Henbane leaves, bls.	lb.	.40	- .45
Heptachlor dms. c.l., t.l., frt. alld., 100% basis	lb.	.96	—
Heptane, indust., tankcars, New Jersey and New York gal.		.20	—
Houston, Texas gal.		.1625	—
Hesperidin, purif., 50 kilos, f.o.b. works	kilo.	19.70	—
Hesperidin methylchalcone, 50 kilos, f.o.b. works	kilo.	49.25	—
Hexachlorophene dms., 1,100 lbs. or more	lb.	1.84	—
dms. to 1,100 lbs	lb.	1.94	—
Hexalin (see Cyclohexanol).			
Hexamethylenetetramine, tech., bgs., 20,000-lb lots or more, Perth Amboy or New York City	lb.	.233	—
bgs., 1,000-19,999-lb. lots, same basis	lb.	.243	—
bgs., smaller lots, same basis	lb.	.253	—
Hexamethylenetetramine, tech., fib. dms., 1,000-lb. lots or more same basis	lb.	.250	—
fib dms. smaller lots, same basis	lb	.253	—
USP, bgs., 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York City and Philadelphia	lb.	42½	—
bgs., smaller lots, same basis	lb.	43½	46¼
Hexane, industrial, tankcars, New Jersey and New York gal.		.20	—
Houston Texas gal.		.16	—
l-Hexanol, dms., c.l., works	lb.	.35	—
dms., l.c.l., works	lb.	.35¾	—
tanks, works	lb	.33	—
Hexyl cinnamic aldehyde, dms	lb.	3.95	4.00
n-Hexyl methacrylate, dms., c.l., works	lb.	75½	—
dms., l.c.l., works	lb.	.76	—
Hexyl salicylate, dms.	lb.	1.70	1.75
Hexylene glycol, dms., c.l., dlvd	lb.	.17½	—
dms., l.c.l., dlvd.	lb.	.19	—
tanks, dlvd.	lb.	.15	—
Hexylresorcinol, USP, dms., 25-lb. lots or more, dlvd	lb.	14.00	—
dms. smaller lots, dlvd.	lb.	14.50	—
Homatropine hydrobromide, USP, bots	oz.	3.25	—
Homatropine methylbromide, USP, bots	oz.	3.00	- 3.25
Hoofmeal, 17-18% ammonia, bulk, c.l. Chicago unit-ton		6.75	—
Horehound herb, bls.	lb.	.18	- .20
Hydrastis (see Goldenseal).			

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Rochester, Buffalo Solvents & Chemicals Corp., LO 2-5980
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Hydrazine Hydrate—Juniper Berries

Hydrazine hydrate, 85%, 240-lb. dms., c.l., works lb. 1.28 - —
240-lb. dms., l.c.l., works lb. 1.35 - 1.55
Hydriodic acid, purif., 47%, 2-cbys., f.o.b works lb 2.92 —
Hydroabietyl alcohol, tech., solid, dms. c.l., dlvd. zone 1 lb .29¼- —
dms., l.c.l., dlvd zone 1 lb 29¾ .30¼
tanks dlvd zone 1 lb 27¼ —
Zone 1 for hydroabietyl alcohol comprises all of continental US except Ariz. Calif. Colo., Idaho. Mont., Nev. N M. Ore., Utah, Wash., Wyo., and the western part of Texas.
Hydrobromic acid, medicinal, 48%, cbys. frt equaid lb .48 .56
Hydrochloric acid, anhyd (see Hydrogen chloride)
Hydrochloric acid, 18 cbys., c.l., works 100 lbs 2.50 —
cbys. l.c.l. dlvd Metropolitan area 100 lbs 2.90 3.05
tanks, works, frt equaid ton 28.00 —
20°, cbys., c.l., works 100 lbs 2.75 - —
cbys. l.c.l. dlvd Metropolitan area 100 lbs 3.15 - —
tanks works frt equaid ton 30.00 —
22°, cbys., c.l., works 100 lbs. 3.25 - —
cbys l.c.l. dlvd Metropolitan area 100 lbs 3.65 - —
tanks works frt equaid ton 35.00 - —
Hydrochloric acid CP, USP, consumers cbys. extra, c.l., works lb. .15¾- —
cbys. l.c.l., same basis lb .17¼- .17¾
5-pint bots., extra cs., c.l., same basis lb. .20¾- —
lb. .20¾- —

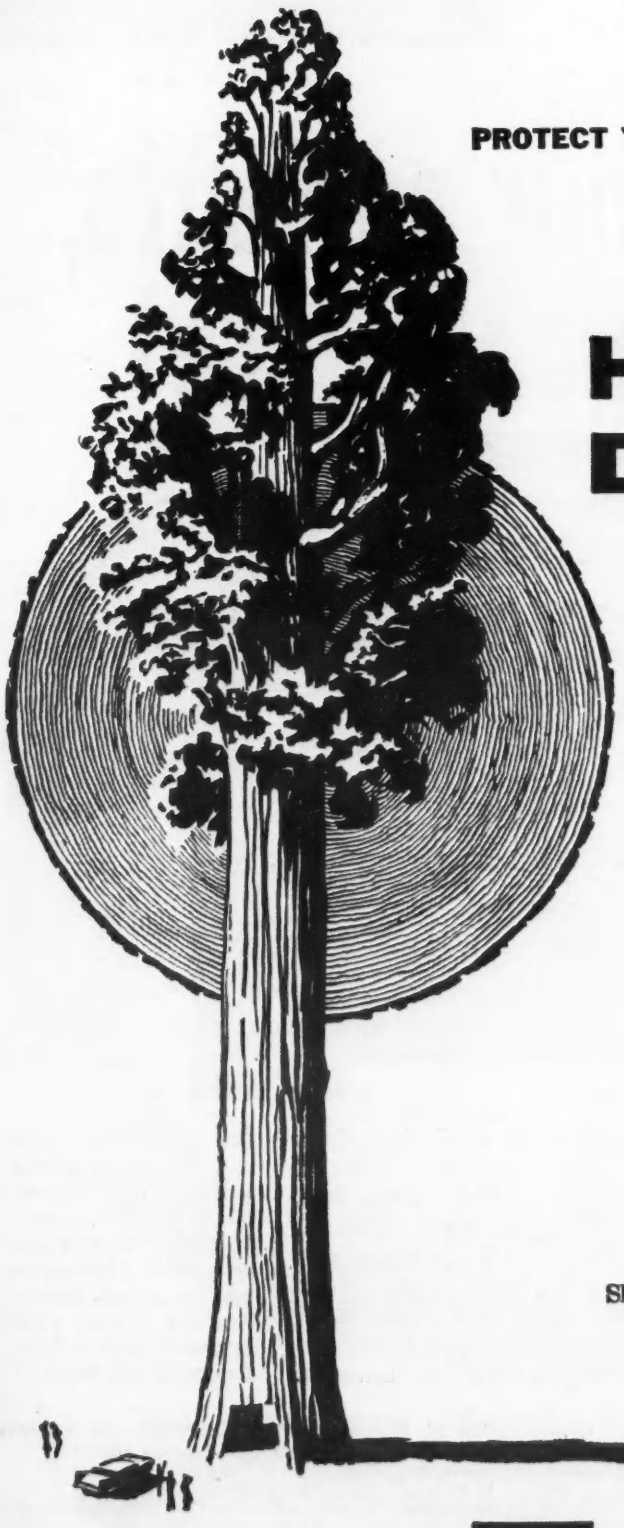
Hydrocortisone acetate, bulk, bots., kilo lots or more gram. .85 - —
Hydrocortisone alcohol, bulk, bots., kilo lots or more gram. 1.00 - 1.90
Hydrocyanic acid, dilute, NF, 2%, 5-pint bots., f.o.b. works, pint. .70 - —
Hydrofluoric acid, anhyd. (see Hydrogen fluoride)
Hydrofluoric acid, aqueous, 70%, 55-gal. or 30-gal. dms., c.l., t.l., dlvd 100 lbs. 19.25 - —
55-gal. dms., l.c.l., t.l., dlvd 100 lbs. 20.75 - —
20-gal. dms., c.l., t.l., dlvd 100 lbs 21.00 - —
20-gal., dms., l.c.l., t.l., dlvd. 100 lbs. 22.50 - —
tanks, works frt. equaid 100 lbs 13.40 —
Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming in those states add $2.70 per cwt. for drum delivery
Hydrofluosilicic acid dms., works, 30% basis lb. .07 - —
Hydrofuramide, dms., fib. ctns., works lb. .30 - .40
50-lb. cyls., l.c.l., works lb. .55 - .60
Hydrogen chloride, anhyd., 50-lb. cyls., l.c.l., works lb. .45 - —
Hydrogen cyanide, liq., 98% tanks, works lb. .14 - —
Hydrogen fluoride, anhyd., cyls., dlvd. E lb. .30½- .32½
cyls., dlvd W lb. .39 - —
tanks, works lb. .18 - —
Hydrogen peroxide, 35%, dms., c.l., dlvd lb. .202 - —
dms., l.c.l., dlvd. lb. .211 - —
tanks, dlvd. lb. .1800- —
Hydroquinone, photo grade, dms., 50-lbs., f.o.b. works lb. 1.10 - —
Tech., dms., c.l., dlvd. lb. .82½- —
dms., l.c.l. dlvd lb. .84½- —
Hydroquinone monomethyl ether, dms., t.l. dlvd lb 2.59 - —
dms., l.t.l., dlvd lb. 2.61 - —
Hydroxyacetic acid, tech., 70% dms. Philadelphia and Chicago lb. .11 - —
tanks Belle W Va lb. .073 —
Hydroxycitronellal, cns. lb. 5.65 - 6.00
Hydroxyethyl cellulose, fib. dms., 20,000-lb. lots or more, f.o.b. shipping point lb. .74 - —
fib dms. 2,000 to 19,999 lb. lots, same basis lb. .79 - —
fib dms. 100 to 1,999 lb. lots, basis lb. .83 - —
Hydroxyethyl cellulose, fib. dms., smaller lots, same basis lb. .93 - —
(Highest viscosity [15,000 cps.] grade is 10c. per lb. higher.)
Hyoscine salts (see Scopolamine)
Hyoscyamine hydrobromide, bots. oz. 7.75 8.50
Hyoscyamine sulfate, bots oz. 7.75 8.50
Hypophosphorous acid, purit., 50%, 10-cbys. f.o.b works lb 1.95 - —
NF 50% 10-cbys., same basis lb. 1.35 - —

I

Ichthammol, NF, dms. lb. .75 - 1.05
Indigo (see Dyes, coaltar, 1171 indigo, syn.)
Indole, CP, bots. lb. 13.65 -15.00
Inositol, 50-100 lb. dms., 1,000 lbs. or more, dlvd. lb. 4.50 - —
50-lb. dms., less than 1,000 lb., dlvd lb. 4.75 - —
10 lb. cns., 10-50 lbs., dlvd. lb. 5.00 - —
5 lb. bots., dlvd. lb. 5.25 - —
Insect flowers (see Pyrethrum).
Iodine, crude, kgs. lb. 1.10 - —
Resub., USP, dms., f.o.b. works lb. 2.20 - 2.22
Iodochlorohydroquinolin, USP, dms. lb. 3.60 - —
Iodoform, NF dms. 300-lbs., t.o.b. works lb. 4.90 - —
dms., 100-lbs., same basis lb 5.05 - —
a-Ionone, cns. lb. 4.60 5.75
b-Ionone, cns. lb. 4.15 6.15
Ipecac root, whole, bgs. lb. 8.00 - 8.50
Powd., bbls., bxs. lb. 9.50 -10.00
Irish moss, bleached, prime, bls. lb. .30 - .32
Iron blue, alkali-resisting, bbls., c.l., dlvd. E lb. .60 - —
bbls. l.c.l. ton lots, same basis. lb, .61 - —
bbls., smaller lots, same basis. lb. .62 - —
Dom., reg. bbls., c.l., dlvd. E lb. .55 - —
alkali-resistant, dom., reg., bbls., c.l., ton lots, same basis lb. .56 - —
bbls. l.c.l. smaller lots same basis lb. .57 - —
Imp. British, reg., bbls. c.l. dlvd. E lb. .48 - —
bbls., l.c.l., ton lots, same basis lb. .49 - —
bbls., l.c.l., smaller lots, same basis lb. .50 - —
Iron blue dlvd. prices le higher for Pacific Coast states: Wash., Ore., Cal., N M., Ariz., Mont. Wyo. Utah. Col and Nev
Iron compounds (see Ferric or Ferrous).
Iron oxide, black, pure, bgs., c.l., works lb. .14¾- —
bgs. l.c.l., works lb. .15 —
Iron oxide, brown, pure, bgs., c.l., works lb. .14¼- —
bgs., l.c.l., works lb. .14½- —
Iron oxide, metallic, brown, bgs., works lb. .05½- —
Iron oxide, Persian Gulf, red., bgs., c.l., works lb. .08¾- —
Iron oxide, red, dom., pure bgs., Bethlehem, E. St. Louis, New York City lb. .14¼- —
Iron oxide, red, nat., 75-85% ferric oxide, bgs., c.l., works lb. .06¼- —
bgs., l.c.l., works lb. .06½- —
Iron oxide, Spanish red, bbls., c.l., ex dock lb. .05¾ Nom.
bbls., l.c.l., ex dock lb. .06 Nom.
bbls., l.c.l., ex whse. New York. lb. .06½ Nom.
Iron oxide, yellow, nat., French type, bgs., c.l., works lb. .06¾- .07
Peruvian type, bgs., l.c.l lb. .023 .024
Iron oxide, yellow, pure, light lemon shade bgs. c.l., works lb. .12¼- —
other shades, same basis lb. .13 - .13½
Isoamyl alcohol, dms., c.l., works, frt. alld E lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 —
Isoborneol cns. lb. 1.44 1.80
Isobornyl acetate, cns. lb. .46 .56
Isobornyl formate, dms. lb. 1.15 - 1.20
Isobornyl propionate, dms lb. 1.20 - 1.25
Isobutyl acetate, perfume grade, cns lb. .30 - .35
Solvent grade, dms., c.l., dlvd. E. of Rockies lb. .15¼- —
dms., l.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12¾- —
Isobutyl alcohol, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks, dlvd. lb. .13 - —
Isobutylene, 99%, tanks, works gal. .38 - —
Isobutyl isobutyrate, dms., f.o.b. works lb. .75 - —
Isobutyraldehyde, CP, dms., c.l., dlvd lb. .27½- —
dms., l.c.l., dlvd. lb. .28½- —
Tech., dms., c.l., dlvd. lb. .22 - —
dms., l.c.l., dlvd. lb. .23 - —
tanks, dlvd. lb. .19½- —
Isobutyric acid, dms. c.l., t.l., dlvd. lb. .35 - —
dms., l.c.l., t.t.l., same basis lb. .36½- —
t.c. t.t., same basis lb. .33 —
Isobutyronitrile, dms., c.l., dlvd. lb. .47½- —
dms., l.c.l., dlvd lb. .48½- —
tanks, dlvd. lb. .45 —
Isoeugenol, cns. lb. 3.10 - 3.40
Isoniazid, powd., bulk, 50 kilos kilo. 12.00 —
Isonicotinic acid, 100-lb fib. dms., works lb. 4.25 - —
Isonicotinic acid hydrazide (see Isoniazid).
Iso-octyl alcohol, dms., c.l., dlvd. E. lb. .23½- —
dms., l.c.l., dlvd. E. lb. .25 - —
tanks, dlvd E lb. .21 —
Isopentane, coml. grade, tanks, f.o.b Tex. refy gal. .16½- —
Isophorone, dms., c.l., dlvd lb. .24½- —
dms., l.c.l., dlvd lb. .25¼- —
tanks, dlvd. lb. .22½- —
Isophthalic acid, dms., c.l., works, frt. equald lb. .19 - —
dms., l.c.l., same basis lb. .20 - —
Isopropanol (see Isopropyl alcohol).
Isopropyl acetate, dms. c.l. dlvd. lb. .14 —
dms., l.c.l., same basis lb. .15½- —
tanks, same basis lb. .11½- —
Isopropyl alcohol, refd., 91%, dms., c.l., dlvd gal. .58 - —
dms., l.c.l., dlvd. gal. .68 - —
tanks, dlvd. gal. .42 - —
Isopropyl alcohol, refd., 95%, c.l., dms., dlvd gal. .60 - —
dms., l.c.l., dlvd gal. .70 - —
tanks, dlvd. gal. .44 - —
Isopropyl alcohol, anhyd., c.l., dlvd. gal. .62 - —
dms., l.c.l., dlvd. gal. .72 - —
tanks, dlvd gal. .46 - —
Isopropyl benzene (see Cumene)
Isopropyl ether, dms., c.l., dlvd lb. .09½- —
dms., l.c.l., dlvd. lb. .11 - —
tanks, dlvd lb. .07 —
Isopropyl-N-(3-chlorophenyl) carbamate (CIPC) tech., dms., c.l. t.l., works lb. 1.00 —
dms., l.c.l., works lb. 1.05 1.25
tanks, works lb. .99 —
Isopropylamine (see Mono, Di, or Tri-)
Isopropyl-N-phenyl carbamate, 450-lb fib dms. c.l., t.l., works lb. .75 —
450-lb fib dms. l.c.l. works lb .80 .90
Isoquinoline, dms. works lb 65 1.25
Itaconic acid, refd, bgs, c.l. t.o.b works lb. .39½- —
bgs., l.c.l., same basis lb. .41 - .43
Tech., bgs., c.l., same basis lb .34½- —
bgs., 500-lbs. same basis lb. .36 - —

J

J acid, paste, bbls. works, 100% basis lb 2.70 —
Powd. bbls. same basis lb 2.75 —
Jalap root, NF, bls lb .55 .60
NF, powd., bbls., bxs lb .65 .70
Japan wax, cs lb .29 .31
Juniper berries, bgs. lb .16 .17



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Petrochemicals Department, Gulf Oil Corporation, Pittsburgh, Pa.

Juniper Berry Oil—Lithium Silicate

Juniper berry oil NF, bots.	lb	2.90	3.75
Twice rectified, bots.	lb	3.25	—
Juniper tar oil NF dms.	lb	42	.60
Juniper wood oil, tech. cns.	lb.	.38	.55

K

Kaolin (see also Clay, China).			
Kaolin NF powd., fib dms	lb.	.10	.12
NF colloidal 50-lb. bgs.	lb	15½	.17½
Karaya gum No 1, NF powd., bls	lb.	48	.50
No 2, powd. bbls.	lb.	43	.45
No 3, powd. bbls.	lb.	.37	.40
Koch acid bbls. frt. alld., 100% basis	lb	1 00	—
Kola nuts, bgs.	lb.	.11	.12

L

L acid, bbls., works	lb.	1 25	—
Lacquer diluent petroleum, 140°F. 200°F b.r., tankcars, New Jersey and New York	gal.	.20	—
Group 3	gal.	.15125	—
Houston Texas	gal	.16	—
200°F-240°F b.r., tankcars, New Jersey or New York	gal.	.20	—
Group 3	gal.	.14125	—
Houston, Texas	gal.	.16	—
Lactic acid, edible, 50%, bbls. dms., c.l., frt. equald	lb.	.1985	—
bbls., dms., 20 or more, frt. equald	lb.	.2035	—
bbls., dms., 5 to 19, frt. equald.	lb.	.2085	—
bbls. dms. 1 to 4, frt equald.	lb	2135	—
80%, bbls., c.l., dms., frt. equald.	lb.	.3335	—
bbls. dms., 20 or more, frt equald	lb.	.3385	—
bbls., dms., 5 to 19 frt. equald.	lb.	.3435	—
bbls. dms., 1 to 4, frt equald.	lb.	.3485	—
Plastic grade, 50%, c.l., bbls., works	lb	.2740	—
bbls. 20 or more, works	lb	2790	—
bbls. 5 to 19, works	lb	2840	—
bbls., 1 to 4, works	lb.	.2890	—
80% bbls. c.l. works	lb	4825	—
bbls. 5 to 19, works	lb.	4725	—
bbls. 1 to 4, works	lb.	.4775	—
Tech., 44%, bbls., c.l., works.	100 lbs.	12.45	—
bbls., l.c.l., works	100 lbs.	12 85	—
USP, 85% chys.	lb.	.85	—
Lactose, crystalline, edible, bgs., 23,000-lb lots, frt equald	lb.	.14	—
bgs., 6,000-lb lots, frt equald	lb.	.14½	—
bgs., 2,000-lb lots, frt equald	lb.	.14¾	—
bgs., 200-lb lots, frt equald	lb	15¼	—
Edible lactose in fib dms., ½c higher.			
Lactose, ferment, grade, bgs., c.l., works	lb.	.08¾	—
Lactose, USP, reg., fib, dms., 30,000-lb. lots, frt. equald	lb.	.21½	—
5lb. dms., 2,000-lb. lots, frt. equald	lb.	.22¼	—
200-1,880-lb. lots, frt. equald	lb.	.22¾	—
USP lactose in bags ½c to 1c. lower.			
Lactose, USP, spray dried, bgs., t.l., frt. equald	lb.	.18½	—
bgs., t.t.l., frt. equald	lb.	.19	.19¾
Lady's slipper root, bls	lb.	3.00	3.50
Lamp black, bgs., c.l., works	lb.	.16	.45
Lanolin, USP, anhyd., 400-lb. dms., works	lb.	.34	.36
USP, annyd., cosmetic, 400-lb. dms., works	lb.	.36	.36
USP, hydrous, 400-lb dms., works.	lb.	.20	—
Lard, cash, dms., Chicago	lb.	.13½	—
Lard oil (see Grease oil).			
Larkspur seed bgs.	lb.	.35	—
Laurel leaf oil, dms. cns.	lb	9.75	12.50
Laurent's acid, bbls	lb.	.87	—
Lauric acid, pure, dms.	lb.	.30¼	.32¾
bags	lb.	.28¾	.31¼
tanks	lb.	.27¾	—
Lauryl alcohol, bots	lb.	2.00	2.50
n-Lauryl methacrylate, dms., c.l., t.l., works	lb.	.65½	—
dms. t.t.l., works	lb.	.66	—
Lavandin oil, 22-24%, dms.	lb.	1.15	—
Abrial, dms.	lb.	1.20	—
Lavender flowers, medium, bls	lb.	.55	.60
Ord., bls.	lb.	.20	.25
Select., bls.	lb.	.90	1.00
Lavender flower oil, USP, French, 35-37% ester, cns	lb.	1.85	4.00
40-42% ester, cns.	lb.	3.50	3.65
Spike, Spanish, cns	lb.	1.75	2.00
Lead acetate, NF, cryst., gran., powd., bbls	lb.	.24½	—
White, cryst., bbls.	lb.	.25½	—
gran., bbls.	lb.	.26½	—
powd., bbls.	lb.	.26½	—
Lead arsenate, acid powder, dealers, 3-50-lb. bgs. or any quantity, frt. alld. on $150 or more	lb.	.30½	—
1-lb bgs., same basis	lb.	.47	—
Lead, blue, basic sulfate, bbls., c.l., shipt point, frt. alld	lb.	.17	—
bbls., l.c.l., same basis	lb.	.18	—
Lead carbonate (see Lead, white, basic carbonate).			
Lead chloride, 400-lb. fib. dms.	lb.	.56	—
Lead iodide, NF, V jars	lb.	3.82	—
Lead linoleate, fused, 26.5% Pb, dms.	lb.	.38	—
Lead metal, prime, pigs, New York.	lb.	.11	—
St. Louis	lb.	.1080	—
Lead monosilicate, bgs., c.l., works, frt equald	lb.	.1385	—
bgs., l.c.l., same basis	lb.	.1485	—
Lead naphthenate, liq., 16% Pb., dms., dlvd	lb.	.19½	—
24% Pb., dms., dlvd	lb.	.24¼	—
Solid, 37% Pb., dms. dlvd	lb	.31¾	—
Lead nitrate, tech., cryst., 400-lb. fib. dms	lb.	.2675	—
Lead orthosilicate gel., 50-60% PbO, dms., works	lb.	.29¾	.34¼
Lead peroxide, tech powd., bbls	lb.	.45	.50
Lead phthalate, dihasic, dms. works.	lb.	.41	—
Lead, red, 95% Pb_3O_4, or less, bbls., c.l., works, frt equald.	lb.	.1375	—
bbls., l.c.l., same basis	lb.	.1475	—
Lead, red, 97% Pb_3O_4, bbls., c.l., same basis	lb.	.1395	—
bbls., l.c.l., same basis	lb.	.1495	—
98% Pb_3O_4, bbls., c.l., same basis	lb.	.1410	—
bbls., l.c.l., same basis	lb.	.1510	—
Lead, resinate, precip., 23% Pb. dms.,	lb.	.49	—
Lead salicylate, normal dms. works	lb.	.46	—
Lead silicate (see Lead white basic silicate).			
Lead silicochromate, bgs., c.l., f.o.b. mfrs. point, frt. alld	lb.	.20	—
bgs., l.c.l., same basis	lb	.21	—
Lead sulfate (see Lead blue basic sulfate).			
Lead tallate, liq., 16% Pb. dms	lb.	.17¼	—
24% Pb, dms	lb.	.21¼	—
Solid, 30% Pb, dms	lb.	.26¾	—
Lead, white, basic carbonate, bgs., c.l., shipt pt., frt. alld	lb.	.18	—
bgs. l.c.l., same basis	lb.	.19	—
Lead, white, basic silicate, bgs., c.l., shipt. pt., frt. alld.	lb.	.16½	—
bgs., l.c.l., same basis	lb.	.17½	—
Lecithin, edible, tech. bleached, non-ret. dms., c.l., works.	lb.	.14	.15
non-ret. dms. l.c.l., same basis	lb.	.15	.16
unbleached, non-ret. dms., c.l., same basis	lb.	.13	.14
non-ret. dms. l.c.l., same basis	lb	.14	.15
Lemon bioflavonoid complex, 50 kilos, f.o.b. works	kilo.	14.20	—
Lemon oil, USP, Calif., cns., dms	lb.	1.80	2.50
Messina, cns.	lb	3.25	4.00
Lemongrass oil, cns., dms	lb	2.45	2.50
dl-Leucine, dms., 1 kilo, works	kilo.	50.00	—
Licorice root gran. bls	lb	13	—
Powd. bls.	lb	15	.16
Whole bls	lb	09	.10
Lignaloe wood oil, Mexican, cns	lb.	2.60	2.95
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate)			
Lilac oil	lb.	1,500.00	
Lime, chemical (quicklime), bulk, c.l., 50,000 lbs. works, E	ton.	14.25	—
Chemical, hydrated, bgs., c.l., same basis	ton.	17.25	—
spray, bgs., c.l., same basis	ton.	18.25	—
For New York delivery add $6.29 freight charge			
Lime oil, dist., Mexican, dms.	lb.	5.50	6.00
West Indian, dms	lb.	5.50	6.00
Expressed, West Indian, dms	lb.	6.50	7.75
Lime salts (see Calcium)			
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).			
Linalool, ex bois de rose oil, dms.	lb.	2.45	4.25
Syn., 96-100%, dms., works	lb.	2.40	3.75
Linalyl acetate, ex bois de rose, 90-92%, dms	lb.	2.65	4.50
96-98%, dms.	lb	3.25	—
Syn., 96-100%, dms., works	lb.	2.75	—
Lindane, 25% formulation, to distributors, dms. frt. alld.	lb.	1.35	1.50
99%, tech. to formulators, 250-lb. dms., 5,000 lbs., dlvd	lb.	2.13	—
100-lb. dms., 5,000-lbs. dlvd.	lb.	2.15	—
250-lb. dms., less than 5,000-lbs., dlvd	lb.	2.18	—
100-lb. dms., less than 5,000-lbs. dlvd	lb.	2.20	—
Linden flowers, with leaves, bls	lb.	.35	.40
Without leaves bls.	lb.	.43	.45
Linseed meal, expeller, 32% hulk, Minneapolis, mills	ton.	59.50	—
Extracted, 34% hulk, same basis	ton.	54.00	—
Linseed oil, raw, dms., c.l., New York	lb.	.1670	—
dms., l.c.l., New York	lb.	.1760	.1810
tanks, f.o.b. Minneapolis	lb.	.1310	—
tanks, New York	lb.	.1422	—
tankwagon, New York	lb.	.1472	—
Boiled linseed oil, .006c. per lb. higher.			
Linseed oil acid, dist., dms	lb.	.2075	—
Water white, dms	lb.	.2425	—
Litharge, comi., powd., bbls., c.l., works, frt. equald	lb.	.1325	—
bbls., l.c.l., same basis	lb.	.1425	—
Lithium aluminum hydride, lump, dms., works	lb.	33.00	39.00
Lithium benzoate, dms.	lb.	1.65	1.67
Lithium bromide, NF, gran., bgs., works, frt. equald	lb	2.60	—
Lithium carbonate, NF, dms., ton lots	lb.	.58	—
dms., 1,999 lbs. or less	lb.	.64	—
Tech., dms., ton lots	lb.	.57	—
dms., 1,999 lbs. or less	lb.	.63	—
Lithium chloride, CP, anhyd., dms., ton lots	lb.	1.23½	—
Tech., anhyd., dms., c.l., t.l., dlvd. or works, frt. alld	lb.	.87	—
dms. l.c.l. same basis	lb.	.88	.93
Lithium citrate, NF dms. ton lots.	lb.	1.50	—
Lithium fluoride, dms., 20,000-lb. lots, dlvd	lb.	1.75	—
bbls., ton lots and more, dlvd	lb.	1.85	—
bbls., less ton lots, dlvd	lb.	1.90	—
Lithium hydride, powd., dms., 500-lbs. lots or more, works.	lb.	9.50	—
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld	lb.	.60	—
dms., l.c.l., frt. alld	lb.	.64	—
Lithium manganite, dms. works	lb.	.95	1.05
Lithium nitrate, tech., dms., 100-lb lots	lb.	1.15	1.25
Lithium salicylate, dms.	lb.	1.60	1.70
Lithium silicate, dms., works	lb.	1.10	1.20

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every single time
It's Exchange Lemon Oil U.S.P., California Cold Pressed. Here is lemon flavor as it should be—full of the aromatic pungency of California's best lemons. And it's uniform—the same, batch after batch. Only the Sunkist Growers, with the world's largest stocks of coastal, highland and desert-grown lemons at their command, could produce an oil with such consistent flavor balance.
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Products Sales Department, Ontario, California
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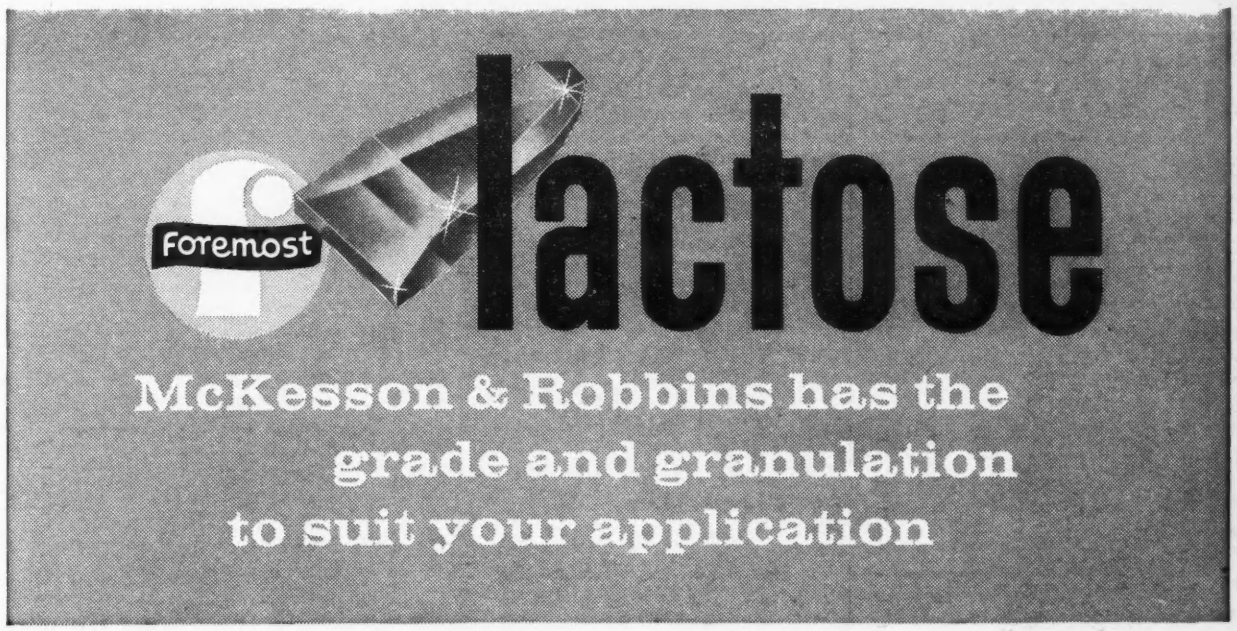
Exchange

Lithium stearate, dms., c.l., works, lb. .47½-.—
dms., ton lots, works lb. .48½-.—
dms., less-ton lots, works lb. .53½-.—
Lithium sulfate, dms., 100-lb. lots, lb. 1.15 1.35
Lithium titanate, dms., works lb. 1.15 - 1.25
Lithol red toner, barium, bbls., works lb. 1.03 - —
Lithol-rubine red toner, pure, bbls., works lb. 1.65 - —
Resinated, bbls., works lb. 1.47 - —
Lithopone ord, bgs., c.l., dlvd E, lb. .08¾-.—
bgs., t.c.l., dlvd E lb. .09½-.—
Titanated (high-strength), bgs., c.l., dlvd lb. .11 - —
bgs., t.c.l., dlvd lb. .12 - —
Lobelia herb, bls lb. .95 - 1.10
Lobeline sulfate, bots., 50-oz. lots, works oz. 30.00 - —
Locust bean gum, powd., bgs. lb. .35 - .40
Lycododium, cs. lb. 2.50 - 3.00
1-Lysine monohydrochloride, 25-lb. dms lb. 4.95 - —

M

Mace, Siauw, No. 1, bls. lb. 1.58 - —
No. 2, whole, bls. lb 1.40 - —
siftings, bls lb 1.35 - —
Mace oil, dist., cns., dms lb. 9.00 -11.00
Magnesia, calcined, tech., bgs., cts., frt equald lb. .25¾-.26½
Tech, syn., rubber grade, light, bgs., c.l., frt. equald lb .28¾-.30
rubber grade, extra light, bgs., c.l., frt equald lb. .28 —
bgs. t.c.l., frt equald lb .28¾-.—
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points
Magnesia, calcined, tech., heavy, 85% bgs., c.l. f.o.b Lunning, Nev ton. 39.50 - —
91%, bgs., c.l., same basis ton. 49.50 - —
95%, bgs., c.l, same basis ton 59.00 - —
USP, light, bgs. lb. .36½-.37½
USP, heavy, bgs. lb. .36½-.37½
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt. equald ton. 86.25 - —
Magnesite, chemical grade, dead-burnt, standard grain, bulk, c.l., Chawelah, Wash. ton. 46.00 - —
Magnesium bromide, 80-lb. dm., f.o.b. works lb. 1.15 - —
Magnesium carbonate, tech., bgs., c.l., frt. equald lb. .11 - —
bgs., t.l., frt. equald lb. .11½-.—
bgs., t.c.l., frt. equald lb. .13½-.14
USP, bgs., c.l., frt. equald lb. .13½-.—
bgs. t.l., frt equald lb .14 —
bgs., t.c.l. frt equald lb .15 .16
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points.
Magnesium chloride, anhyd., 92%, flake or pebble, drums., c.l. works lb. .12¾-.—
dms. t.c.l., works lb. .14 .15
hydrous, 99%, flake, bgs., c.l., works ton. 60.00 - —
bgs., t.c.l., works ton. 75.00 -100.00
Magnesium gluconate 100-lb. dm., f.o.b works, E lb. 1.42 - —
Magnesium hydroxide, NF, powd., dms., 500-lbs. or more, f.o.b works lb. .24½-.25½
Magnesium lauryl sulfate, dms., c.l., frt. alld lb. .22½-.—
dms., t.t.l., frt alld. lb. .23½-.—
tanks, frt. alld. lb. .21½-.—
Magnesium metal, 99.8%, ingots, 10,000-lb. lots or more, works lb .36 - —
Magnesium metal, 98.8%, pigs, 10,000-lb. lots or more, works lb. .35¼-.—
sticks, cs., works, frt. alld on carlots lb. .59 - —
Magnesium nitrate, cryst., dms., works lb. .29 - —
Magnesium oxide (see Magnesia calcined).
Magnesium phosphate, tribasic, NF, bbls lb. .75 - —
Magnesium silicate (see Talc)
Magnesium silicofluoride, dms., works lb .10½-.13
Magnesium sulfate, tech., bgs., c.l., works 100 lbs. 2.15 - —
bgs, t.c.l., works 100 lbs. 2.90 - 3.15
USP, cryst., bgs., c.l., works, 100 lbs. 2.35 - —
bgs., t.c.l., 5,000 lbs., 1 withdrawal 100 lbs. 3.10 - —
bgs., smaller lots 100 lbs. 3.35 - —
Magnesium trisilicate, USP, fib. dms., 5,000-lb. lots lb. .38 - —
fib. dms., 1,000-lb. lots lb. .40 - —
fib. dms., 100-lb. lots lb. .45 - —
Bulky and super grades of magnesium trisicilate 7c per lb. higher.
Malachite green, straight, PTA, bbls., works lb. 5.30 - —
Malathion, dms., c.l., works lb. .89 - —
dms., t.c.l., works lb. .92 - 1.01
Maleic acid, cryst., powd., dms lb. .37¼-.—
Maleic anhydride, dms., c.l., frt. equald lb. .24 - —
dms., t.c.l., frt. equald lb. .25½-.—
tanks, frt equald lb .22½-.—
Maleic anhydride in bags ½c. per lb. less.
Malic acid, tech., dms lb. .50 —
Mandelic acid NF dms., 1,000-lb. lots lb. 2.35 - —
dms. smaller lots lb 2.40 - 2.50
Mandrake root, bls. lb. .45 - —
Manganese acetate, dms., dlvd lb. .35 - —
Manganese borate, tech., fib. dms. lb. .23½-.—
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb. lots and more, works lb. .11 - .16
Manganese chloride, CP, anhyd., dms., 20,000-lb. lots, works lb. .21¾-.—
smaller lots, works lb. .23½-.—
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net works ton. 148.00 - —
40,000 to 99,999-lb. lots, paper bgs., same basis ton. 144.50 - —
40,000 to 99,999-lb. lots, dms. same basis ton. 152.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb. lots, $3 per ton higher.
Manganese gluconate, dms lb. 1.84 - —
Manganese hydrate, dms., dlvd lb. .35 - —
Manganese hypophosphite, NF, dms. lb. 3.52 - —
Manganese linoleate, liq., 4.35% Mn, dms lb. .35¾-.—
Solid, precip., 8.2% Mn bbls lb. .41¼-.—
Manganese metal, electrolytic, dms., c.l., dlvd. E lb. .34½-.—
dms., ton tots, dlvd. E lb. .37 - —
dms., smaller lots, dlvd E lb. .39 - —
Manganese naphthenate, liq., 6% Mn, dms., frt. alld lb. .39¾-.—
Manganese resinate, fused, 3½% Mn. dms lb. .29¼-.—
Precip., 6½-7% Mn, dms. lb. .42 - —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd. S., E ton. 86.50 - —
bgs., t.c.l., dlvd. S., E ton. 93.50 - —
Manganese tallate 6%, dms. lb. .26½-.—
Manila copal gum, C, bgs lb. .35 - .39
DBB, bgs. lb. .24½-.28
DK, dust, bgs. lb. .14 Nom.
MA, soft, bgs. lb. .20 .24
WS, bgs lb. No stocks.
Mannitol, com'l fib dms., ton lots, works lb. .60 —
fib. dms., to ton lots, works lb. .62 - —
fib. dms., single dm., works lb. .65 —
Marine pitch, dms lb. .04¼-.05
MBTS (see Mercaptobenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works lb. .26½-.—
bgs., t.c.l., works lb. .28 - —
Menadione, USP bots. gram. .044 .05
Menhaden oil, crude, tanks, works, Atl. & Gulf ports lb. .06½-.—
Menthol, nat. USP, Brazilian large crystals, cs lb. 8.10 - —
Nat., USP, Brazilian, regular crystals, cs lo. 8.00 - —
Japanese cs. lb. 10.50 12.00
Syn., USP, racemic, 25-lb. lots lb. 4.25 - —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld lb. .44 - —
bgs. fib. dms. less ton lots, same basis lo. .46 - —
Mercaptobenzothiazyl disulfide, bgs., fib dms., ton lots, works, frt. alld lb. .54 - —
bgs., fib dms., less ton lots, same basis lb. .56 - —
Mercuric chloride, NF, cryst., dms., 100 lbs., f.o.b works lb. 4.03 - —
USP, gran or powd., 50-lb. dm., 100 lbs., f.o.b. works lb. 3.78 - —
Mercuric cyanide, NF VIII powd., fib dms lb 5.84 - —
Mercuric iodide, red, NF, 100-lb. dm., f.o.b. works lb. 6.97 - —
Mercuric oxide, red, NF IX 50-lb. dm., 100 lbs. f.o.b works, lb 4.72 - —
tech., 50-lb dm., 100 lbs., same basis lb 4.52 - —
yellow, NF, 50-lb. dm., 100 lbs., same basis lb. 4.89 - —
tech., dms. 100 lbs lb 4.35 - —
25-lb fib dm. lb. 4.38 - —
Mercurous chloride (see Calomel).
Mercurous iodide, yellow, NF 100-lb. dm f.o.b works lb 8.22 - —
Mercury, ammoniated (see White precipitate USP XV).
Mercury metal 76 lbs. per flask, net-flask 206.00 -209.00
Mesityl oxide dms., c.l., dlvd lb .15 —
dms. t.c.l., dlvd. lb. .16½-.—
tanks, dlvd lb .12½-.—
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline)
Metanilic acid dms, works lb .57 .75
Metanitroparatoluidine (see m-Nitro-toluidine)
Metanitroaniline (see m-Nitroaniline)
Metaphenylenediamine (see m-Phenylenediamine).
Metatoluidine (see m-Toluidine)
Metatolylenediamine (see 2,4-Tolylenediamine).
Methacrylic acid glacial 98%, dms. truckloads frt equald lb .42½-.—
dms. smaller lots, frt equald lb 43 .78
tanks works, frt. equald lb 40 —
Methanol, nat, denaturing grade, tanks frt alld gal .85 —
Syn., zone 1, dms., c.l., or t.l. min. dlvd gal. .51½-.—
dms. t.c.l., dlvd gal. .61½-.—
tankwagon, 2,000-4,000 gal. lots, dlvd Metropolitan area gal. .35 —
tankwagon, 4,000 gal min., dlvd gal. .30 —
tankwagon, 4,000 gal min., f.o.b terminal gal .29 —
Methanol, syn., zone 2, dms. c.l., or t.l., min frt alld or dlvd. gal. .55½-.—
dms., t.c.l., works gal. .65½-.—
tankwagon, 2,000-4,000 gal. lots min., dlvd, Metropolitan area gal. .39 —
tanks, 4,000 gal min., dlvd. gal .34 —
Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash
Methapyrilene fumarate, 100-999 lbs., dms., f.o.b. works, frt. equald lb. 21.75 - —



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- Lactose Fermentation Grade

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Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b works, frt equald lb. 27.25 - —
Methenamine (see Hexamethylene-tetramine).
Methionine hydroxyanalogue (calcium salt) 90% min., dms f.o.b. frt alld lb 1.10 - —
dms., t.t.l., same basis lb 1.16 - —
dl-Methionine, fib dms., frt alld, 50-lb or more lb 4.50 - —
Feed grade 98% fib dms, same basis lb 1.43 - —
Methoxychlor 50% wettable powder dealers dms cs lb 66 —
Methyl abietate, non-ret dms., c.l., divd., zone 1 lb 21½ —
non-ret dms. t.c.l. same basis lb 22 .22½
Methyl abietate hydrogenated, non-ret dms. c.l. divd zone 1 lb .23½ —
non-ret dms. t.c.l. same basis lb 24 24½
Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.
Methyl acetone, nat., dms., t.c.l., E. of Miss. frt alld gal. 62½ —
Syn., dms., c.l., frt. alld. E gal. .66 - —
dms., t.c.l., frt. alld. E gal. .76 - —
tanks frt alld E gal 51 —
Synthetic methyl acetone E territory comprises all states East of and including Colo., Mont., N. Mex., and Wyo. West territory is made up of all states west of those four.
Methyl acrylate, dms., c.l., t.l., divd. lb. .35¼ —
dms., t.t.l., divd lb. .36¼ —
tanks, divd. lb. .32¼ —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., divd. E lb. .17 - —
dms., t.c.l., divd E. lb. .18½ —
tanks, divd E. lb. .14½ —
Methyl amyl alcohol, dms., c.l., divd. lb. .17 —
dms., t.c.l., divd. lb. .18½ —
tanks, divd lb .14½ —
Methyl amyl ketone, dms., c.l., t.l., f.o.b. works lb. 1.99¼ —
dms., t.c.l., same basis lb. 2.00 - —
N-Methylaniline, tech., tanks, frt. alld lb .60 —
Methylanthranilate, cns. lb. 2.25 2.45
Methyl benzoate, cns., dms lb. .60 .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld lb. .62 - .72
on 100 lbs lb. .73 - .79
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb bgs., c.l., works lb. .82 - —
50-lb bgs., 2,000-lb. lots and more, same basis lb. .89 - —
50-lb bgs., smaller lots, frt. alld. on 100 lbs lb 1.05 - —
Methyl cellulose, standard vis. (15-400 cps.) 50-lb. bgs., c.l., frt. alld lb. .69 - —
50-lb bgs., 2,000-lb lots and more, same basis lb. 76 - —
50-lb bgs., smaller lots, frt. alld. lb. .89 - —
Methyl chloride, indust. cyls., trt. equald lb. .22¼ - —
tanks, multi-unit, same basis. lb. .16¼ - —
tanks, single unit, same basis. lb 12¾ - —
Methyl chloride, refrigerator mfrs., cyls., divd lb. .48¾ - —
Other consumers or service men, cyls., divd lb 67¾ —
Methyl chloroform (see 1,1,1-Trichloroethane).
Methyl cinnamate, cns lb. 1.55 1.80
Methyl ethyl ketone, dms., c.l., divd lb. .15 —
dms., t.c.l., divd lb. .16½ - —
tanks, divd lb. .12½ - —
2-Methyl-5-ethyl pyridine, dms., c.l., works lb. 45 —
dms., t.c.l., works lb. 45¾ - —
tanks, works lb. 43 —
Methyl formate, refd., dms lb. .35 .40
Tech., non-ret. dms., any quantity, works lb. .10 - —
tanks, works lb. .07 - —
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works lb. .26 - —
100-lb. multiwall paper bgs., t.l., min 23,000 lbs., works lb. .27 - —
100-lb multiwall paper bgs., t.t.l., works lb. .28 - —
Methyl heptin carbonate, bots. lb. 27.25 -29.00
Methyl p-hydroxybenzoate, fib dms lb 1.90 2.00
Methyl ionone, standard, cns. dms. lb 3.40 3.85
Methyl isoamyl ketone, dms., c.l., divd lb. .20 —
dms., t.c.l., divd. lb. .20½ - —
tanks, divd. lb. .17½ - —
Methyl isobutyl carbinol (see Methyl amyl alcohol).
Methyl isobutyl ketone, dms., c.l., divd lb. 17 —
dms., t.c.l., divd lb. .18½ - —
tanks, divd lb. .14½ - —
Methyl methacrylate, dms., c.l., t.l., frt. equald. with Belle, W. Va lb. .31 - —
dms., smaller lots, same basis lb. .31½ - —
tanks, same basis lb. .29 - —
Methyl naphthyl ketone, cryst., cns lb. 2.45 4.30
Methyl parahydroxybenzoate (see p-Hydroxybenzoate).
Methyl parathion, tech., 80%, dms., frt alld E lb. .84 - —
Methyl parathion prices 2c per lb higher in West.
Methyl roseaniline chloride, NF., 5-lb fib dms lb 6.90 - —
Methyl salicylate, dms., t.l., frt. alld lb. .60¼ - —
dms., t.c.l., same basis lb. .62½ 67½
Methyl testosterone, USP, 100-gram bots gram. No Prices.
2-Methyl-5-vinyl pyridine, 40-dm lots or more, f.o.b works lb. 1.32 - —
5-39 dm lots, same basis lb. 1.37 - —
tanks, same basis lb 1.27 - —
Methyl violet toner, molybdated, PMA bbls., divd E of Rockies lb. 2.95 - —
Tungstated PTMA bbls., same basis lb 4.35 —
Methyl violet prices 1c higher W. of Rockies.
Methylene blue, fib dms, 100-lb lots, frt. adjusted lb. 4.67 —
Methylene chloride, tech., straight or assorted dms. c.l. or t.l., divd lb. .12½ - —
dms. t.c.l. t.l. divd lb .15¾ - —
tanks, 4,000-gal. min., divd lb. .11¼ - —
b-Methylnaphthalene, 97% m.p., dms., works lb .90 —

Methylpentanediol (see Hexylene glycol).
Methylphenylpyrazolone (see 1-phenyl-3-methyl-pyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint, plastic, 100 mesh, bgs., c.l., works lb. .04 - —
roofing, 20 to 80 mesh, works lb. .03 - —
wet-grd., biotite, bgs., c.l., works, frt. alld.E lb .06½ - —
bgs. t.c.l., ex-whse. lb. .07¼ - —
paint or lacq., bgs., c.l., 325 mesh, works, frt alld E. lb. .08¼ - —
bgs. t.c.l. ex-whse or freight alld E lb .09 —
Mica, wet-grd., rubber, bgs., c.l., works, frt. alld E lb .08 —
bgs. t.c.l. ex-whse. or frt. alld E lb. .08¾ - —
wallpaper, bgs., c.l. works, frt. alld.E lb. .08¾ - —
bgs. ex-whse or frt alld E. lb .09 —
white, 5-10 microns, bgs., c.l., works, frt alld E lb .08¼ —
Mica, wet-grd W. of Miss ½c higher; W. of Rockies 1c higher.
Microcrystalline wax, petroleum, coating grades, tankcars, works lb. .10 .11
laminating grades, tankcars, works lb .11 .12
Mineral black, bgs., works lb. .0160- .0673
Mineral oil, white tech. 50-65 vis., non-ret. dms., c.l., t.o.b. refy. gal. .70 - —
non-ret. dms., t.c.l., same basis gal. .75 - —
tankcars, refy. gal. .54 - —
65-75 vis., non-ret. dms., c.l., same basis gal. .70½ - —
non-ret. dms., t.c.l., same basis gal. .75½ - —
tankcars, refy. gal. .54½ - —
NF, 80-90% vis., non-ret. dms., c.l., same basis gal. .71 - —
non-ret. dms., t.c.l., same basis gal. .76 - —
tankcars, refy. gal. .55 - —
135-138 vis., non-ret. dms., c.l., same basis gal. .77 - —
non-ret. dms., t.c.l., same basis gal. .82 - —
tankcars, refy. gal. .61 - —
145-155 vis., non-ret. dms., c.l., same basis gal. .83 - —
non-ret. dms., t.c.l., same basis gal. .88 - —
tankcars, refy. gal. .67 - —
USP, 180-190 vis., non-ret. dms., c.l., same basis gal. .85 - —
non-ret. dms., t.c.l., same basis gal. .90 - —
tankcars, same basis gal. .69 - —
200-210 vis., non-ret. dms., c.l., f.o.b. refy gal. .875 - .90
non-ret. dms., t.c.l., same basis gal. .925 - —
tankcars, refy. gal. .69 - .715
340-350 vis., non-ret. dms., c.l., f.o.b. refy. gal. .92½ - —
non-ret. dms., t.c.l. gal. .97½ - —
tankcars, refy. gal. .76½ - —
(For divd. N.Y. prices add 2c. for c.l. and 3c. for t.c.l.).
Mineral orange, American, bbls., c.l., works lb. .16 - —
bbls., t.c.l., same basis lb. .17 - —
Mineral spirits, petroleum, odorless, tankcars, New Jersey gal. .29 - —
New York gal. .305 - —
Houston, Texas gal. 25 —
regular, tankcars, New Jersey and New York gal. .18 —
Group 3 gal. .12875- —
Houston, Texas gal. .145 —
Mineral spirits, 140 F. flash, New York, New Jersey at terminal gal. .205 - —
Houston, Texas gal. .17 - —
Mink oil, dms. lb 2.75 - —
Mirbane oil (see Nitrobenzene).
MNPT maroon toner, kgs., c.l., works lb. 6.30 - —
Molasses, blackstrap, feed grade, tanks, New Orleans gal. .13 - .13½
tanks, New York gal. .15½ - .16
Molybdated orange, bbls. lb. 49 —
Molybdenum metal, powd., 80 or 200 mesh, ctns., works kilo 7.84 - —
325 mesh, ctns., works kilo 9.13 - —
Molybdenum trioxide, purif., dms., works lb. 1.15 - —
Tech., chemical, dms., works, basis Mo content lb 1.48 - —
Tech., metallurgical, dms., works, basis Mo. content lb. 1.47 - —
Molybdic acid, 84%, dms., works, lb. 1.05 1.15
Monoallylamine, dms., c.l., divd lb. .965 - —
dms., c.l., divd. lb. .995 - —
tanks, divd. lb. .96 - —
Monobutylamine, dms., c.l., divd. E. of Rockies lb. .57½ - —
dms., t.c.l., same basis lb. .59 - —
tanks, same basis lb. .55 - —
Mono-tert-butyl-m-cresol, dms., c.l., works lb. .55 - —
dms., t.c.l., works lb. .56 - —
tanks, works lb. .54 - —
Monochloracetic acid, purif. (see Chloroacetic acid, mono).
Monochlorobenzene, dms., c.l., frt. alld. or divd. E lb. .10½ - —
dms., t.c.l., same basis lb. .11½ - —
tanks, same basis lb. 08¾ - —
Monochlorobenzene prices in the West 1¾c. higher.
Monoethanolamine, dms., c.l., divd. E lb. .27½ - —
dms., t.c.l., same basis lb. .29 - —
tanks, same basis lb .25 - —
Monoethylaniline (see n-Ethyl-a-naphthylamine).
Monoethylamine, 70% aqueous solution, dms., c.l., divd. E. 100% basis lb. .38½ - —
dms., t.c.l., divd. E., 100% basis. lb. .40 - —
tanks, divd. E., 100% basis lb. .35 - —
Monoethylaniline (see N-Ethylaniline).
Monoethylorthotoluidine (see N-Ethyl-o-toluidine).
Monoisopropanolamine, dms., c.l., divd. E lb. .27½ - —
dms., t.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —
Monoisopropylamine, anhyd., dms., c.l., divd lb. .33½ - —
dms., t.c.l., same basis lb. .35 - —
tanks, same basis lb. .31 - —
Monomethylamine, anhyd., cyls., t.c.l., frt. equald., 100% basis lb. .30 - —
tanks, 100% basis lb. .26 - —
30-35% soln., dms., c.l., frt. equald. 100% basis lb. .36 —
Monomethylamine, 30-35% soln., dms., t.c.l., frt equald, 100% basis lb. .36½ - —
tanks, frt. equald., 100% basis. lb. .26 - —
40% soln., dms., frt. equald., 100% basis lb. .33 - —
dms., t.c.l., frt. equald. 100% basis lb. .33½ - —
tanks, frt. equald, 100% basis. lb. .26 - —
Monopentaerythritol, tech., bgs., c.l., divd E lb. .31 - —
bgs., t.c.l., divd. E lb. .32 - —
Monopotassium glutamate, dms., 1,000 lb lots, frt alld lb 3.05 - —
dms. 100 lb lots, same basis lb 3.25 - —
Monosodium glutamate, dms. divd. lb. 1.07 1.15
Monosodium phosphate (see sodium phosphate, monobasic).
Montan wax, Calif. refd., bgs lb .27 .28
Imp., crude, Bohemian, bgs lb. .25 - .26
German, bgs lb .25 - .26
Morphine, cns. 100-oz. f.o.b. works oz. 12.35 - —
Morphine hydrobromide, cns., 100-oz., f.o.b works oz 9.90 - —
Morphine hydrochloride, NF, cns., 100-oz., f.o.b works oz 9.90 - —
Morphine sulfate, USP, cns., 100-oz., f.o.b works oz 9.90 —
Morpholine, dms., c.l., divd E lb .55¼ - —
dms., t.c.l., divd. E lb. .56¾ - —
tanks, divd E lb. .52¾ - —
Muriatic acid (see Hydrochloric acid).
Musk, syn. ambrette, fib dms., 100-lb lots lb 4.40 4.90
cns., 25-lb lots lb 4.50 5.00
Ketone, fib dms., 100-lb lots lb 4.60 5.10
cns. 25-lb lots lb 4.70 5.20
Xylol, fib dms., 100-lb lots lb 1.26 —
cns., 25-lb lots lb. 1.40 —
Mustard seed, Danish, yellow, bgs. lb. .10 - —
Montana, yellow, bgs lb. .10½ - —
Oriental, bgs. lb. .09 - —
Mustard oil, syn., bots. lb. 1.60 1.85
Myristic acid, bgs. lb. .23¼ - .25¾
tanks lb. .22¼ - —
Myrrh gum, cs. lb. .65 .75

N

Naphtha, high solvency (see Solvent naphtha, petroleum).
Naphtha, petroleum, cleaner's (see Cleaner's naphtha).
Naphtha, VM&P, petroleum, tankcars, New Jersey and New York gal. .19 - —
Group 3 gal. .13875- —
Houston, Texas gal. .155 —
Naphthalene, crude, dom., 78°, tanks, frt. equald lb. .06¼ - .06½
Refd., indust., chipped, crushed, bgs., frt. equald lb. .14½ - —
tanks, same basis lb. .11¾ - —
Naphthalene, refd., indust., balls, flakes, wholesalers, jobbers bbls., c.l., same basis. lb. .15½ - —
cs. 50 lbs. c.l., same basis. lb. .15¾ - —
1-lb pkgs. c.l., same basis. lb. .18½ - —
a-Naphthol, dms., frt. alld lb. 1.02 - —
b-Naphthol, tech., flake bbls., c.l., works lb. .34 - —
bbls. t.c.l., works lb. .36 - —
Naphthol, ITR, red toner, bbls., works lb 5.00 - —
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid)
1-Naphthol-4 sulfonic acid (see Neville and Winther's acid)
1-Naphthol-5-sulfonic acid (see L acid)
1-Naphthol-5-sulfonic 8-amino acid (see S acid)
2-Naphthol-6,8-disulfonic acid (see Gamma acid).
Naphthol sulfonic mixed acid (see Cleve's acid)
a-Naphthylamine, dms., frt. alld lb. .52 - —
b-Naphthylamine, tech., flake, bbls., works lb. 1.60 - —
1-Naphthylamine-5-sulfonic acid (see Laurent's acid)
2-Naphthylamine-4,8-disulfonic acid (see Cassella acid).
2-Naphthylamine-1-sulfonic acid (see Tobias acid)
2-Naphthylamine-6-sulfonic acid (see Broenner's acid)
2-Naphthylamine-7-sulfonic acid (see F acid)
Naringin, fib dms lb. 8.50 —
Neatsfoot oil, 15° cold test, dms lb. .29 Nom.
20° cold test, dms. lb. .28 Nom.
30° cold test, dms. lb. .27 Nom.
Neocinchophen, USP, dms., frt. adjusted lb. 7.00 8.00
Neomycin sulfate, fib dms, 1-kilo basis activity gram. .25 —
fib. dms. 100-999-gram lots, basis activity gram. .30 - —
Tech., fib dms gram. .13½ - —
Neopentylglycol, dms., c.l., divd lb. .32 - —
dms. t.c.l. same basis lb .33 - —
Nerol, dms. lb 4.75 —
Neroli oil, NF, French, bots. lb. 425.00 -575.00
Tunisian, bots. lb. 400.00 —
Nerolin, cns. lb. 2.45 2.85
Neville and Winther's acid, dms., frt. alld lb. 1.50 - —
Niacinamide (see Nicotinamide).
Nickel acetate, bbls., divd lb. .68½ - .75½
Nickel carbonate, bbls. divd lb. 78¼ - .85¼
Nickel chloride, bbls. divd lb. .37 .45
Nickel formate, bbls., ton lots, frt. alld lb. .72 .73
Nickel metal, electro cathodes, cs., works lb .74 —
Nickel nitrate, dms., frt. alld lb. .31½ - .33½
Nickel oxide, black, bbls. lb. .85 - —
Green, bbls lb. .84 - —
Nickel sulfate, bgs., c.l., divd lb. .28 - —
bgs., t.c.l., divd. lb. .28½ - .36
Nicotinamide, USP, 50-kilo, dms., 100 kilos., divd kilo. 5.75 - 6.50
dms. less than 100 kilos. divd. kilo. 6.25 - 7.00
Nicotinamide hydrochloride, 50-kilo dms., divd kilo. 6.50 - 7.50
Nicotine sulfate 40%, dealers, 50-lb. dms frt alld lb 1.20 - —
40% manufacturers, 500-lb. dms., frt. alld lb 1.05 - —
Nicotinic amide, USP (see Nicotinamide).
Niger seed, bgs. lb. 10¼ - —
Nikethamide, cbys. lb. 5.00 - —
Nitric acid, 36° Be., cbys., c.l., works E 100 lbs. 5.75 —
cbys., t.c.l., works E 100 lbs. 6.05 6.85
38° Be., cbys. c.l., works E. 100 lbs 6.25 —
cbys., t.c.l., works E 100 lbs 6.55 7.35
40° Be., cbys., c.l., works E 100 lbs. 6.75 - —
cbys., t.c.l., works E 100 lbs. 7.05 7.85
42° Be., cbys., c.l. works E. 100 lbs. 7.25 —
cbys., t.c.l., works E 100 lbs. 7.55 8.35
56.5 to 68% HNO_3, tanks, works, 100% basis 100 lbs. 3.90 - —
94½ to 95½% HNO_3, tanks, works, 100% basis 100 lbs. 4.90 - —
Nitric acid, CP, NF, consumer, cbys., extra, c.l., works lb. .18½ - —
cbys., extra, t.c.l., works lb. .20 - —
5-pint bots., extra, cs., c.l., same basis lb. .22½ - —
5-pint bots., extra, cs., t.c.l., same basis lb. .24 .25
dms., frt. alld lb. .99 - —
4-Nitro-2-aminophenol, tech., paste, dms., t.c.l., works lb. .64 - —
m-Nitroaniline, cryst., dms., frt. alld lb 1.15 - —
Paste, dms., frt. alld., 100% basis. 1.10 - —
o-Nitroaniline, flaked, dms. t.l., frt. alld lb. .49 - —
dms. t.t.l., frt. alld. lb. .51 - —
o-Nitroaniline orange toner kgs. lb. 1.50 - —
p-Nitroaniline, c.l., t.l., dms., 20,000 lb. min., divd lb. .44½ - —
dms. t.c.l., same basis lb. .46½ - —
o-Nitroanisole, tech., tanks, frt. alld. lb. .36 —
p-Nitroanisole, tech., solid, dms., frt alld lb. .72 - —
Nitrobenzene, dbl. dist., dms., c.l., frt alld lb. .13 —
dms., t.c.l., frt. alld. lb. .14 - —
tanks, frt. alld. lb. .12 - —
p-Nitrobenzoic acid, dms., c.l., works lb. .63 - —
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works lb. .37½ - —
bbls., t.c.l., same basis lb. .33½ - 40½
18-20 cps. bbls. c.l., same basis lb. .39½ —
bbls., t.c.l., same basis lb. .40½ - .42½
250-400, 600-1,000 seconds, bbls., t.c.l. same basis lb. .43 .46
Nitrocellulose, spirit soluble, 30-35 cps. ¼, ½ seconds, bbls., c.l. same basis lb. .43 —
bbls., t.c.l., same basis lb .44 46
5-6 cps., 40-60 seconds, bbls., c.l., same basis lb. .42 —
bbls., t.c.l., same basis lb .43 45
Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.
o-Nitrochlorobenzene, dms. c.l., frt. alld lb .15 —
dms., t.c.l., same basis lb .16 —
tanks, same basis lb .13 —
p-Nitrochlorobenzene, dms. lb. .26 .27
2-Nitro p-cresol, tech., dms., divd lb .88 —
Nitroethane, dms., c.l., divd. E lb. .28½ - —
dms., t.c.l., divd. E. lb. .30 - —
tanks, divd E. lb. .26 - —
Nitroethane prices West of Rockies are 1c. higher.
Nitrogen solutions, direct application, tanks, f.o.b. works unit-ton. 1.64 - —
Manufacturing type, same basis, unit-ton. 1.32 - —
Nitrogen tetroxide, indust., tankcars, f.o.b Hopewell, Va lb. .065 —
Cyls. t.l., min 5 tons, same basis lb. .07½ - —
Cyls., t.c.l., t.t.l. same basis lb. .15 —
Nitrogenous process tankage, bulk, works unit-ton 4.50 5.00
Nitrogenous sewage sludge, bulk, f.o.b Chicago works unit-ton 3.50 —
(The foregoing price is per unit NH_3, plus 50c. per unit a.p.a., bulk, f.o.b producers works, Chicago.)
Nitromethane, dms., t.l., divd. E. lb. .26 - —
dms., t.t.l., divd. E. lb. .27½ - —
Nitromethane prices West of Rockies are 1c higher.
a-Nitronaphthalene, bbls. frt. alld. lb. .31 - —
o-Nitrophenol, dms., works, frt. equald lb. .94 - —
p-Nitrophenol, dms. c.l., frt alld. lb. .45 —
dms. t.c.l. frt alld lb. .47 —
1-Nitropropane, dms. c.l., frt. alld. E. of Rockies lb. .28½ - —
dms., t.c.l., same basis lb. .30 - —
tanks, same basis lb. .26 - —
1-Nitropropane prices West of Rockies are 1c per lb higher.
2-Nitropropane, dms. c.l., frt. alld. E of Rockies lb. .18½ - —
dms., t.c.l., same basis lb. .20 - —
tanks, same basis lb. .16 - —
m-Nitrotoluene, tech., dms., frt. alld. lb. .50 - —
o-Nitrotoluene, dms. c.l., frt. alld lb .15 - —
dms. t.c.l., frt alld. lb. 16 - —
tanks, frt. alld. lb. .13 - —
p-Nitrotoluene, tech., cast, dms., c.l., works lb. .27½ - —
dms. t.c.l. works lb. .28 - —
flake, dms., c.l., t.l., works lb. .27½ - —
dms. t.c.l. works lb. .28 - —
m-Nitro-p-toluidine, dms. lb. 1.25 —
Nonylphenol, dms. c.l. frt. alld. lb. .22½ - —
dms., t.c.l. frt. alld. lb. .23½ - —
tanks, frt. alld. lb. .20 —
Nonylphenol prices on shipments to Western States are 2c. higher.
Noscapine, cns. oz. 8.00 - —
Nutmegs, East Indian, whole, bgs. lb. 1.18 - —
West Indian, bgs lb. 1.20 - —
Nutmeg oil, USP dist., East Indian, cns lb. 9.00 -12.00
West Indian, cns. lb. 9.00 -12.00
Nux vomica, bls. lb. .20 —
Powd., bbls., bxs. lb. .20 .23

O

Ocher (see Iron oxide, yellow, nat.).
Ocotea cymbarum oil, dms. lb. .45 - .47
Octane, indus. tanks, Bayonne, N.J. gal. .20 —
1-Octanol, tech., dms. c.l., divd., Zone 1 lb. .43½ - —
dms., t.c.l., divd. Zone 1 lb. .45½ - —
tanks, divd., Zone 1 lb. .41 - —
Octyl alcohol, perfumers grade, bots. lb. 1.60 3.25
Octyl alcohol, tech. (see 1-Octanol, tech).
tert-Octylamine, dms., c.l., t.l., f.o.b. works lb. .54½ - —
dms. t.c.l. same basis lb 55 —
Octylphenol, bgs., c.l., works lb. .22½ - —
bgs., t.c.l., works lb. .23 - —
tanks, works lb .21½ - —
Octylphenol in dms., 11c. higher.

OILS

Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

Oiticica oil, liq., dms. lb. .15½ - .16
tanks lb. .14¼ - —
Oleic acid dbl.-dist. (white), dms. lb. .19¾ - .22¼
tanks lb. .17¼ - —
S. D., dms. lb. .18¾ - .21¼
tanks lb. .16¼ - —

Oleum (see Sulfuric acid, fuming).			
Olibanum gum, siftings, cs	lb.	.15	.20
Tears, cs.	lb	.22	.30
Olibanum oil, bots	lb	5.00	7.65
Extra fine, bots	lb	8.00	9.50
Olive oil, edible, dms., spot, duty paid	gal.	2.30	—
Olivine, crude, works	ton	12.00	—
20 mesh, works	ton	15.00	—
100 mesh works	ton	20.00	—
Opium, USP cns., 25-lbs., f.o.b. works	oz.	19.20	—
gran. cns. 50 lbs. same basis	oz.	21.65	—
powd. cns. 50 lbs. same basis	oz	21.65	—
Orange oil, expressed, USP, Calif., cns., dms	lb	.70	.90
Calif., sweet, cns. dms	lb.	.60	—
Florida, cns., dms	lb	0	.45
Messina cns	lb	3.25	5.00
West Indian, bitter, cns., dms	lb.	2.50	3.50
Orange peel, bitter, Haitian, bls	lb	.18	.20
Sweet	lb	.28	.30

ORANGE PIGMENTS

Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Origanum oil, Spanish, cns	lb	1.80	2.30
Orris root, Florentine, bls	lb	.55	—
powd, bbls, bxs	lb	.65	—
Verona, bls	lb	.35	—
powd, bbls, bxs	lb	.45	—

Orthoanisidine (see o-Anisidine).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde)
Orthochloroaniline (see o-Chloroaniline)
Orthochlorobenzoic acid (see o-Chlorobenzoic acid)
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline)
Orthochlorophenol (see o-Chlorophenol)
Orthocresol (see o-Cresol)
Orthocresotinic acid (see 2,3-Creosotic acid)
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroaniline (see o-Nitroaniline)
Orthonitrochlorobenzene (see o-Nitrochlorobenzene)
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol)
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidine (see o-Phenetidine)
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary amylphenol (see o-tert-Amylphenol)
Orthotolidine (see o-Tolidine base)
Orthotoluidine (see o-Toluidine)

Ouabain USP bots	gram	3.00	4.00
Ouricury wax, crude, bgs	lb.	.50	Nom.
Refd., pure, bgs	lb.	.54	.55
Oxalic acid, bgs., c.l., works	lb	.18	—
bgs., 10,000-lb. lots, works	lb	.19	—
bgs., smaller lots, works	lb	.20½	—

Oxalic acid in drums is priced ½c per lb higher.

b-Oxynaphthoic acid, pigment manufacture, dms., frt alld	lb.	.912	—
Dyestuff manufacture dms., same basis	lb	1.03	1.14
Oxyquinolin sulfate, cns., 100-lb lots, works	lb	4.75	5.00
cns., smaller lots, works	lb	4.92	5.17

P

Palm oil, clarif., dms	lb.	.14¾	.15¾
tanks	lb.	.12	—
Palm oil acid, double dist, dms.	lb.	.16	.18½
tanks	lb.	.13½	—
single dist., dms	lb	15½	.18
tanks	lb.	13	—
Palmarosa oil, cns	lb	4.90	6.00
Papain, powd., bots.	lb.	3.25	10.00
Papaverine hydrochloride, nat. or syn. USP cns., 25-oz to 100-oz. lots	oz	5.00	—
cns., smaller lots	oz	5.05	5.20
Papaverine sulfate, nat. or syn. USP, cns	oz	7.10	7.35
Paprika, Bulgarian, bgs	lb.	.32	—
Hungarian, bgs.	lb.	.33	—
Spanish, bgs	lb	.30	—
Yugoslavian, bgs.	lb.	.31	—

Para-aminobenzoic acid (see p-Aminobenzoic acid)
Parachlorobenzoic acid (see p-Chlorobenzoic acid)
Paramethylphenylcinchonic acid (see Neocinchophen)
Paranitrobenzoic acid (see p-Nitrobenzoic acid).
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).
Para-aminophenol (see p-Aminophenol).
Parachlorophenol (see p-Chlorophenol).
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).
Para-anisidin (see p-Ansidine)
Parachloraniline (see p-Chloraniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Paracresol (see p-Cresol)
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).

Para toner, red, bbls	lb.	1.30	—
Chlorinated, kgs.	lb.	1.41	—
Paraffin, crude, scale, white, 123°-127°F., ASTM, tanks, refy.	lb.	.0655	.0660
fully refd., 122°-124°F., ASTM,	lb.	.0765	—
125°-127°F., ASTM, tanks, refy.	lb.	.0765	—
130°-132°F., ASTM, tanks, refy.	lb.	.0765	—
132°-134° F., ASTM, tanks, refy, 135°-137°F. ASTM tanks, refy	lb.	.0765	—

AMP temperatures are an arbitrary 3°F higher than ASTM

Paraffin oil, pale, 100-110 vis., at 100°F, tanks, east coast refy	gal.	.14	—

Paraffin wax (see Paraffin)

Paraformaldehyde 91% flake, bgs., c.l., frt alld	lb.	.10	—
bgs., l.c.l., frt alld	lb.	.12	.13
91%, powd., bgs., c.l., ex whse	lb.	.1715	—
bgs., l.c.l., ex whse	lb.	.1865	—
Paraformaldehyde, USP-X, fib, dms., c.l.	lb.	.19	—
fib dms, 1,000-lb lots	lb.	.20	—
fib dms, smaller lots	lb.	.21½	—
Paraldehyde tech., 98%, 55-gal. dms., t.l., divd, E	lb.	.14	—
55-gal. dms., l.c.l., divd, E	lb.	.15½	—
tanks, divd, E	lb.	.11½	—

Paranitroaniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene)
Paranitrotoluene (see p-Nitrotoluene).
Paranitrophenol (see p-Nitrophenol).
Paraphenetidine (see p-Phenetidine)
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol).
Para-tertiary-amylphenol (see p-tert-Amylphenol)
Para-tertiary butylphenol (see p-tert-Butylphenol).

Parathion ethyl, dms, frt alld	lb.	.84	—

Parathion prices 2c. per lb higher in West.

Paratoluenesulfonamide (see p-Toluenesulfonamide).

Passion flower herb, bls	lb	.35	.40
Patchouli oil, imp., cns.	lb.	5.60	6.50
Peach kernel oil, USP (see Apricot kernel oil).			
Peacock blue, fugitive, 100% color strength, 250-lb. bbls., divd, E of Rockies	lb	1.00	—

Peacock blue price 1c. higher W. of Rockies.

Peanut meal, old process, 45% bgs., f.o.b. mills	ton.	58.00	—
solvent, same basis	ton.	55.00	—
Peanut oil, crude, tanks, f.o.b. mills	lb.	.14⅞	—
Refd., dms.	lb.	.20⅛	.20⅜
tanks	lb.	.18⅛	—
Pectin, doni., NF, citrus, powd., 100 kilos, f.o.b. shipt. pt	kilo	4.52	—
Pelargonic acid, dms., c.l., divd, E	lb.	.27½	—
ton lots, same basis	lb.	.28½	—
tanks, same basis	lb.	.25	—
Penicillin potassium, cryst., bulk, 1,000,000 units.		.018	—
Penicillin procaine cryst., bulk, 1,000,000 units		.020	—
Pennyroyal oil USP imported cns.	lb	1.95	2.70
Pentachlorophenol, 50-lb. bgs., c.l., t.l., works, frt. equald	lb.	.21	—
bgs., less than ton-lots, same basis.	lb	.29	—
bgs., c.l., t.l., 2,000 lb. minimum, same basis	lb.	22½	—
Pentachlorophenol in dms lc. higher			
Pentaerythritol tech. bgs., c.l., divd	lb	.31	—
bgs. l.c.l., divd	lb	.32	—

Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol)

Pentane, indust, tanks, f.o.b. refy	gal.	.14	—
Pentobarbital, dms, 100 lbs. or more	lb	6.00	—
Pepper, black, Malabar, bgs	lb.	.47	—
Lampong, bgs.	lb.	.47	—
Red, Funtuas, bgs	lb.	.32	—
Japanese, Hontoka, bgs.	lb	.37½	—
Santaka, bgs	lb	.31½	—
Sudanese, bgs	lb	.36	—
White, Muntok, bgs	lb.	.65	—
Peppermint leaves, dom., USP, bls., dms	lb	No stocks	
imp., USP, dms.	lb.	.85	.90
Peppermint oil, nat., dms	lb.	4.40	—
Redist., USP, dms.	lb.	4.65	—
Perchloroethylene, dms., c.l., or t.l., divd	lb.	.13½	—
dms., l.c.l., divd.	lb.	.15¼	—
tanks, divd.	lb.	.11¾	—
tanktruck, 1,000 gal. min. divd	lb.	.12¼	—
Peri acid, dry, bbls., frt. alld	lb.	1.60	—
Paste, bbls. frt. alld	lb.	1.55	—
Peru balsam, dms	lb.	1.15	1.50
Persic oil, USP (see Apricot kernel oil).			
Petitgrain oil, South American, cns., dms	lb.	2.30	—
Petrolatum, NF, cream, dms., c.l., refy.	lb.	.085	.08625
dms., l.c.l., divd	lb.	.11125	.11250
tanks, refy.	lb.	.0625	.06375
NF, extra amber, dms., c.l., refy.	lb.	.07625	—
dms., l.c.l., divd	lb.	.1025	—
tanks, refy.	lb.	.05375	—
NF, soft yellow, dms., c.l., refy	lb.	.07625	—
dms., l.c.l., divd	lb.	.1025	—
tanks, refy.	lb.	.05375	—
USP, lily white, dms., c.l., refy.	lb.	.09125	.09675
dms., l.c.l., divd	lb.	.1175	.1223
tanks, refy.	lb.	.06875	—
USP, snow white, dms., c.l., refy.		.09625	—
dms., l.c.l., divd	lb.	.1225	—
tanks, refy.	lb.	.07375	—

Full tankwagons of petrolatum are ¼c. more per lb. than tankcars.

Petroleum pitch (see Asphalt, petroleum).

PETROLEUM PRODUCTS

Petroleum product quotations are listed individually. For example, prices on Petroleum mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret. dms., c.l., works	lb.	.16½	18¾
non-ret. dms., l.c.l., works	lb	17½	19
tanks, works	lb	14½	17
50-55% sulfuric content, non-ret. dms., c.l., works	lb	.16	—
non-ret. dms., l.c.l., works	lb	17	—
tanks, works	lb	13	—
o-Phenetidine, dms., c.l., frt. alld, E	lb	91	—
dms., l.c.l., same basis	lb	93	—
p-Phenetidine, dms., c.l., frt. alld.	lb	1.05	—
dms. same basis	lb	1.08	—
Phenobarbitol, USP, dms., 100-lbs., frt alld	lb.	3.25	—

Phenobarbital-Sodium (see sodium phenobarbital).

Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alld, E. of Rockies	lb.	.17¼	—
non-ret. dms., l.c.l., same basis.	lb.	.18¼	—
tanks, same basis	lb.	.15¼	—

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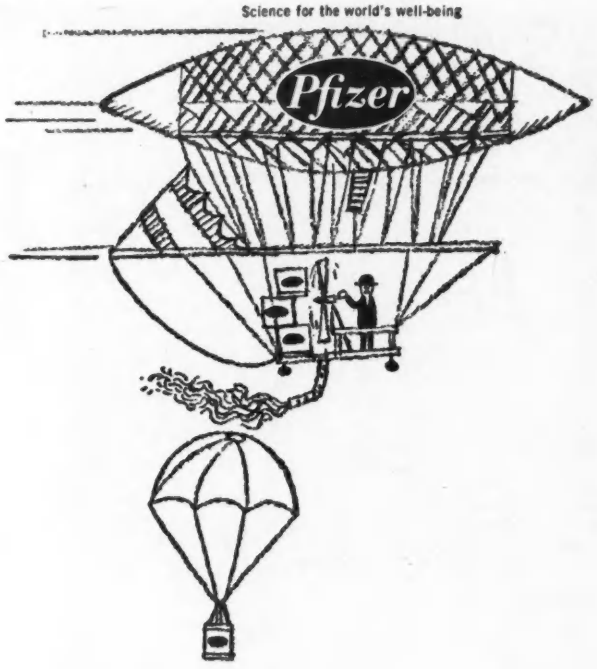

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Phenol, 82-84% (cresol 16-18%) non-ret. dms., c.l., same basis. lb. .17 · —
non-ret. dms., l.c.l., same basis. lb. .18 · —
tanks, same basis lb. .15 · —
39°C., or above, tar dist., non-ret. dms., c.l., same basis lb. .18½- —
non-ret. dms., l.c.l. lb. .19½- —
tanks, same basis lb. .16½- —
USP, syn., dms., c.l., t.l., frt. alld. lb. .19 · —
dms., l.c.l., same basis lb. .21 · —
tanks, same basis lb. .17 · —
Phenolphthalein, USP or yellow, 250-lb dm., 2,000 lbs., frt. alld lb. 1.30 · —
250-lb dm., same basis lb. 1.35 · —
Phenothiazine drench, fib dms., t.l., dlvd lb. .46 · —
fib. dms., ton lots, dlvd lb. .49 · —
NF, fib. dms., t.l., dlvd lb. .45 · —
fib dms., ton lots, dlvd lb. .48 · —
Phenyl acetate, dms., 100-lb. lots, works lb. .50 · —
Phenyl salicylate (see Salol)
Phenylacetaldehyde, soln., 50%, bots. lb. 2.15 · 2.35
100%, bots. lb. 3.80 · 4.00
Phenylacetic acid, pure, cryst., cns. lb. 1.25 · 1.75
dl-Phenylalanine, dms., 1-kilo kilo.65.00 · —
l-Phenyl-3-carbethoxy pyrazolone-5, fib dms., 200-lb. lots, dlvd. E lb. 3.45 · —
fib dms., smaller lots, dlvd. E lb. 3.80 · —

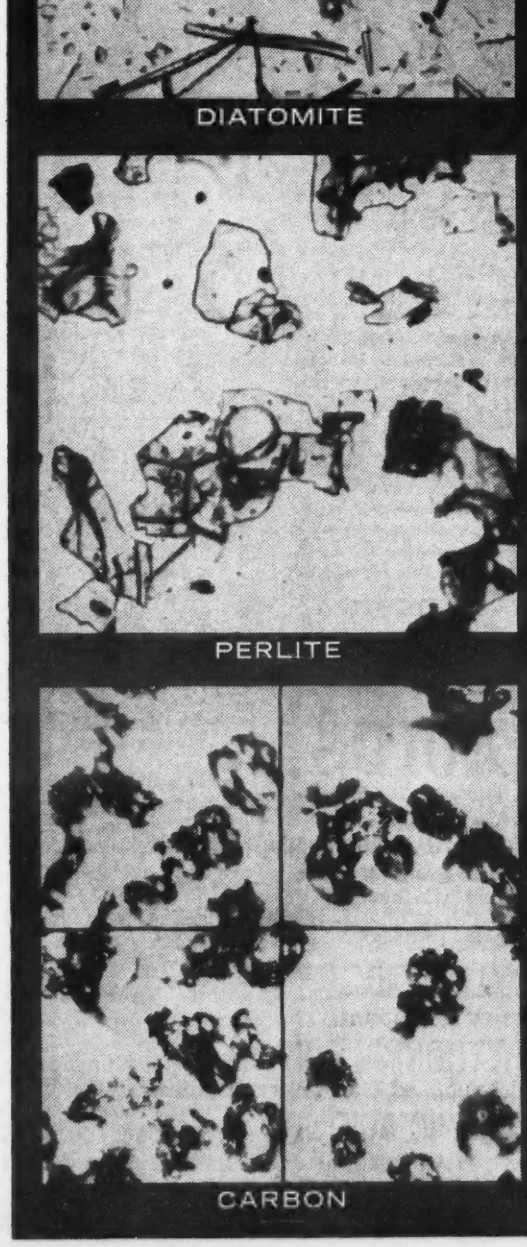
N-Phenyldiethanolamine, dms., c.l., dlvd. E lb. .50 · —
dms., l.c.l., dlvd. E lb. .51½- —
tanks, dlvd. E lb. .47½- —
m-Phenylenediamine, dms., c.l., t.l., frt. alld lb. 1.08 · —
l.c.l., l.t.l., same basis lb. 1.10 · —
o-Phenylenediamine, coml, fib. dms, 100 to 1,000 lbs., works. lb. 1.70 · 1.80
p-Phenylenediamine, tech., dms, works lb. 1.55 · —
Phenylethanolamine, dms., c.l., works lb. .75½- —
dms., l.c.l., same basis lb. .76½- —
Phenylethyl acetate, bots. lb. 1.25 1.40
2-Phenylethyl alcohol, extra, dms. lb. 1.14 1.50
Standard, dms. lb. 1.10 1.60
b-Phenylethylamine, dms., 20,000 lbs. or more, frt. alld lb. 1.50 · —
dms., smaller lots, frt. alld lb. 1.70 · 1.85
Phenylethylphenyl acetate, bots. lb. 4.00 · 4.25
Phenylglyconic acid (see Mendelic acid).
Phenylhydrazine 97%, 450-lb. dms. lb. 1.45 · —
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb. lots, dlvd. E 1.80 · —
fib. dms., smaller lots, dlvd. E lb. 2.10 · —
o-Phenylphenol, dms., l.c.l., works. lb. .48 · .50
p-Phenylphenol, bgs., c.l., works lb. .38½- —
bgs., l.c.l., works lb. .43 · —
Philippine copal gum, pale, chips, bgs. lb. .23¼- .27
nubs, bgs. lb. .33¼- .37
seeds, bgs. lb. .20 Nom.
sorts, bgs. lb. .20 · .24

Phloroglucinol, coml., fib. dms., works lb. 6.40 · —
CP, bots., works lb. 17.75 · —
Tech., fib. dms., works lb. 10.45 · —
Phloxin red toner (see Eosin red toner).
Phosgene, ret. cyls., works lb. .13½- —
Phosphate, defluorinated (see under D).
Phosphate rock, Curacao, Atlantic ports, New Orleans ton. 46.50 · —
Phosphate rock, Florida, land pebble, run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines. short-ton. 4.989 5.398
68-70%, b.p.l., bulk, c.l., same basis short-ton. 5.849 5.858
70-72%, b.p.l., bulk, c.l., same basis short-ton. 6.429 6.438
Phosphate rock, Florida, land pebble, run of mine, washed, dried, unground, 74-75%, b.p.l., bulk, c.l., same basis. short ton. 7.329 - 7.338
76-77%, b.p.l., c.l., bulk, same basis short-ton. 8.219 8.228
Above Florida prices are based on fuel oil at 2.52 per bbl. and labor at $1.64.
Phosphoric acid, food grade, 75%, cbys., c.l., works, E., frt. equald 100 lbs. 7.00 · —
cbys., l.c.l., same basis 100 lbs. 7.25 - 7.75
tanks, t.w., works 100 lbs. 5.60 · —
80%, cbys., c.l., frt. equald 100 lbs. 7.85 · —
cbys., l.c.l., works 100 lbs. 8.10 · 9.35
tanks, t.w., works 100 lbs. 6.00 · —
NF, 85%, cbys., c.l., works. 100 lbs. 8.50 · —
cbys., l.c.l., works 100 lbs. 8.75 9.00
tanks, t.w., works 100 lbs. 6.65 · —

Phosphorus, amorph., red, dms., t.l., works lb. .33 · .35
dms., smaller lots, works lb. .34 · .36
white (yellow), solid, dms., c.l., works, frt. equald lb. .30 · .30½
dms., l.c.l., works, frt. equald lb. .31½- —
tanks, works, frt. equald, lb. .19 · —
Phosphorus oxychloride, dms., c.l., works lb. .14 · —
dms., l.c.l., works lb. .15 · —
tanks, works, frt. equald lb. .12½- —
Phosphorus pentasulfide, powd., dms., c.l., works lb. .13½- —
dms., l.c.l., works lb. .14½- .15¼
Solid, dms., c.l., works lb. .11½- —
dms., l.c.l., works lb. .12½- .13¼
Phosphorus pentoxide, dms., c.l., works lb. .1375- .1475
dms., l.c.l., works lb. .1475- .1675
Phosphorus sesquisulfide, dms., cs., c.l., works lb. .38 · —
dms., l.c.l., works lb. .39 · .40
Phosphorus trichloride, dms., c.l., works lb. .14 · —
dms., l.c.l., works lb. .15 · —
tanks, works lb. .12½- —
Phthalic anhydride, bgs., c.l., works, frt, equald lb. .20 · —
bgs., l.c.l., same basis lb. .21 · —
tanks, same bsais lb. .19½- —
Phthalimide, 97-98%, dms., frt. alld lb. .65 · —
Phthalocyanine blue, full strength, bbls., dlvd. E of Rockies. lb. 2.90 · —
Resinated, bbls., same basis lb. 2.75 · —
Water dispersable, bbls., same basis lb 1.52 —
Phthalocyanine blue prices 1c higher W of Rockies.
Phthalocyanine green toner, bbls., works lb 3.35 · —
Resinated, bbls. lb. 3.00 · —
Water dispersable, bbls. lb. 1.71 —
Phthalocyanine green prices 1c higher W of Rockies
Phthalylsulfacetamide, fib. dms., 1-000-lb. lots or more lb. 5.00 · —
NF, fib. dms. lb. 5.20 —
a-Picoline, dms. c.l., works, frt. equald lb. .46 .48
dms., l.c.l., works, frt. equald lb. .46½- .49
tanks, same basis lb. .43 .46
b-Picoline 98% dms., t.l., works. lb. 1.05 —
dms., l.c.l., same basis lb. 1.15 · —
tanks, same basis lb. .95 · —
b,g-Picoline 5°C dms., c.l., works. lb. .32½- —
dms, l.c.l. works lb. .33 · —
g-Picoline, dms., t.o.b., works lb. 1.60 · —
tanks, t.l., same basis lb. 1.50 · —
Picric acid, NF bbls. lb. .85 · —
Tech., bbls. lb. .50 · —
Pigment green B, kgs lb. 1.55 · —
Pilocarpine hydrochloride, USP, bots oz. 4.75 · 5.25
Pilocarpine nitrate, USP, bots., vials. oz. 4.65 · 5.15
Pimento, Jamaican, bgs lb. .33½- —
Mexican, bgs lb. .56 —
Pimento berry oil, NF, dms. lb. 3.75 9.25
Pimento leaf oil, crude, cns lb. 2.50 · 2.60
Pine oil, dest.-dist. dms., l.c.l. works lb. .15 —
dms, l.c.l. ex whse, New York. lb. .173 · —
Steam-dist. dms, ex whse., New York lb. .185 · —
dms., dlvd lb. .188 —
Pineneedle oil, Siberian (see Abies Sibirica oil).
Pink root, bls. lb. 2.25 · —
Piperazine anhyd. dms. c.l., frt. alld. E lb. 1.80 · —
dms., l.c.l., frt alld. E lb. 1.85 · —
Piperazine citrate, 36% dms., 1,000 lbs. or more, frt. alld lb. 1.33 · —
Piperazine dihydrochloride, 51%, dms. 1,000 lbs or more, frt alld lb. 1.29 · —
Piperazine hexahydrate, 44% dms., 1,000 lbs. or more, frt. alld lb. .90 · —
dms., 200-900 lbs., frt. alld lb. .93 · —
Piperazine phosphate, 42% dms., 1,000 lbs or more, frt. alld lb. 1.11 · —
Piperidine, dist., 98% min., 5 dms. or more, l.c.l., l.t.l., f.o.b. works lb. 2.65 · —
1-4 dms., same basis lb. 2.70 · —
dms., c.l., t.l., frt. equald lb. 2.55 · —
Piperonyl butoxide, dms. dlvd E lb. 4.50 5.05

PITCHES
Pitch quotations are listed individually For example, prices on Pitch, soybean, may be found in the S's under Soybean pitch.

Platinum metal, works oz. 81.00 85.00
Pleurisy root, bls. lb. .45 .50
Podophyllum resin, NF, dms. lb. 12.50 15.50
Poke root, bls. lb. .19 .23
Polymyxin, bots., bulk., 50 billion units or more 1,000,000 units. .52 —
bulk, bots., 25-50 billion units. 1,000,000 units. .54 · —
bulk, bots., 1-25 billion units. 1,000,000 units. .56 —
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works lb. .42 · —
dms., 10,000-20,000-lb lots, works. lb. .44 · —
dms. smaller lots, works lb. .47 .49
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb lots, works lb. .42 · —
dms., 10,000-20,000-lb. lots, works lb. .44 · —
dms., smaller lots, works lb. .47 .49
Pontianak copal gum, chips, bgs lb. .23½- .26
Nubs, bgs. lb. .38 .44
Poppy seed, Argentine, bgs. lb. No stocks.
Dutch, bgs. lb. .14 · —
Danish, bgs. lb. .14 · —
Polish, bgs. lb. .13 · —
Turkish, bgs. lb. .11 · —
Potash, caustic, liq., 45% basis, dms., c.l. works 100 lbs. 4.25 · —
dms., l.c.l., same basis. 100 lbs. 5.25 · —
tanks, same basis 100 lbs. 3.70 · —
reg., flake, 88-92% dms. c.l. same basis 100 lbs. 9.55 · —
dms., l.c.l., same basis. 100 lbs. 11.05 · —
solid, 88-92% dms., c.l., works 100 lbs. 9.10 · —
dms. l.c.l., works 100 lbs. 10.60 · —
Potassium acetate, NF, 200-lb. dm. f.o.b works, E lb. .31 · —
Potassium bicarbonate, USP, gran. dms lb. .22 · —
powd. dms lb. .24 · —
Potassium bichromate, gran., bgs., c.l. t.l., works lb. .18 —
bgs. l.c.l., works lb. .18½ .19¼
Potassium bichromate in dms ¾c. higher.
Potassium bitartrate, NF, gran., powd., 100-lb bgs., c.l., frt. equald lb. .37 · —
100-lb bgs. 5,000 lbs. 1 shipt., same basis lb. .38 · —
100-lb bgs. smaller lots, same basis lb 40 —
Potassium borohydride, powd., dms., works lb. 16.00 22.00
Pelletized potassium borohydride $1.25 per lb. higher in 1,000-lb. lots.



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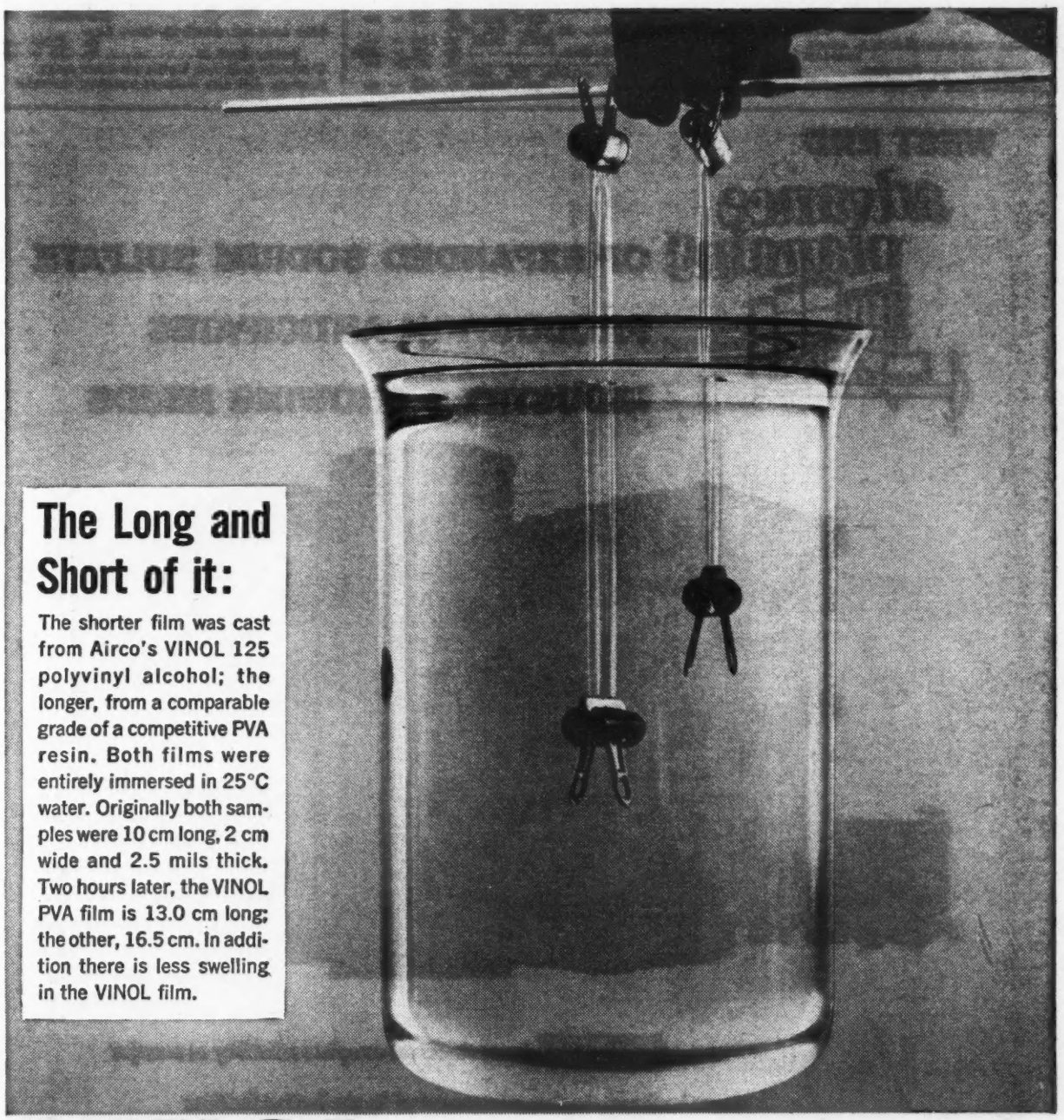
DICALITE DEPARTMENT
Great Lakes Carbon Corporation
612 So. Flower St., Los Angeles 17, California

Potassium bromate, 200-lb. dms., c.l., frt. alld	lb.	.49	—
Potassium bromide, USP, gran., bbls., kgs	lb.	.39	.40
Potassium carbonate, dom., NF, gran., bbls., dms	lb.	.22	.24
Dom., tech., powd., bbls., dms	lb.	.21	.23
Dom., calcinated, bgs., c.l., works, 100 lbs.		8.50	—
bgs., l.c.l., same basis 100 lbs.		9.55	—
Dom., hydrated, 83-85%, bgs., c.l., works 100 lbs.		7.10	—
bgs., l.c.l., works 100 lbs.		8.15	—
Potassium chlorate, cryst, dms., c.l., works	lb.	.12¼-	—
dms., l.c.l., works	lb.	.13½-	.14½
Powd., dms., c.l., works	lb.	.12¾-	—
dms., l.c.l., works	lb.	.14	.15
works	lb.	.12¼-	—
Potassium chlorate, NF, cryst., dms., 2,000 lbs. or more, works	lb.	.16¾-	—
NF, gran., 25-lb metal dms	lb.	.36	—
NF powd., dms., 2,000 lbs. or more, works	lb.	.17¼-	—
Potassium chloride (muriate), 99.9% KCL, bulk, c.l., works	ton.	29.00	—
bgs., c.l., works	ton.	34.00	—
99.3% KCL, bulk, c.l., works	ton.	28.00	—
bgs., c.l., works	lb.	33.00	—
USP, cryst., dms	lb.	.17	—
USP, gran., dms	lb.	.21	.23
USP, powd., dms	lb.	.24	.26
Potassium chloride agricultural (see Potassium muriate).			
Potassium chromate, tech., dms., works	lb.	.50	.51
Potassium citrate, NF, gran., 250-lb. dms., f.o.b. works E	lb.	.43	—
powd., 250-lb dms., same basis	lb.	.46	—
Potassium cyanide, dms., 20,000-lb. lots or more, works	lb.	.42½-	—
dms., 2,000-19,999-lb lots, works	lb.	.43	—
dms., smaller lots, works	lb.	.44	.44½
Potassium dichromate (see Potassium bichromate).			
Potassium ferricyanide, dms., ton lots, works	lb.	.50	—
dms., smaller lots, works	lb.	.65	—
Potassium ferrocyanide, dms., ton lots	lb.	.24½-	—
dms., smaller lots	lb.	.29	—
Potassium fluoborate, fib, dms., c.l., works	lb.	.30	—
fib dms., l.c.l., works	lb.	.31	—
Potassium fluoride, dms., works	lb.	.36	.37
Potassium gluconate, 100-lb. dm., f.o.b. works E	lb.	1.67	—
Potassium guaiacol sulfonate, NF, dms	lb.	2.10	2.30
Potassium hydroxide, tech. (see Potash caustic).			
Potassium hydroxide, USP, pellets, 100-lb dms. 1 to 100-dm. lots	lb.	.33½-	.38
Potassium hypophosphite, NF, fib. dms., 1,000-lb. lots	lb.	1.38	—
Potassium iodide, USP cryst., gran., 250-lb. dm., f.o.b. works	lb.	1.55	—
Potassium manure salt, min. 20% K_2O, bulk, c.l., works, unit-ton.		.17	.1765
Potassium metabisulfite, gran. dms.,	lb.	.16	—
Powd., dms	lb.	.27	—
Potassium muriate, standard, bulk, c.l., works unit-ton.		.37½-	.39½
bagged 60% minimum K_2O, same basis	ton.	26.60-	27.80
Gran., bulk, c.l., works unit-ton.		.38½-	.40½
bagged, 60% minimum K_2O, same basis	ton.	28.10	30.10
Inside prices apply to material contracted for prior to July 1, 1960.			
Outside prices apply to material contracted for after that date but also for delivery during the current month			
Potassium nitrate, NF, cryst., bbls., 20-ton lots 100 lbs.		17.00	—
bbls., smaller lots 100 lbs.		18.00	19.00
gran., bgs., 20-ton lots 100 lbs.		9.50	—
bgs., smaller lots 100 lbs.		11.00	12.00
powd., bgs., 20-ton lots 100 lbs.		10.50	—
bgs., smaller lots 100 lbs.		12.00	13.00
Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm. f.o.b works E	lb.	.32	—
Potassium pentaborate, gran., dms., c.l. works	ton.	219.50	—
dms., ton lots, ex whse 100 lbs.		17.48	—
dms., smaller lots, ex whse 100 lbs.		18.73	—
Powdered potassium pentaborate $10 per ton higher.			
Potassium perchlorate, dms., c.l., works	lb.	.18½-	—
dms., l.c.l., works	lb.	.19	.20
Potassium permanganate, coml., kgs., works	lb.	.25	.33
USP dms., works	lb.	.29	.35
Potassium pyrophosphate, tetrabasic, dms., works	lb.	.1475-	1575
Potassium prussiate red (see Potassium ferrocyanide)			
Potassium prussiate yellow (see Potassium ferro-cyanide).			
Potassium silicate, electrical grade, 30° Be. 1.2.0, dms., c.l., works 100 lbs.		6.50	—
dms., l.c.l., 5 dm. lots or more, works 100 lbs.		7.25	7.65
tanks, works 100 lbs.		6.15	—
40.5° Be 1:2.1, dms., c.l., works, 100 lbs.		5.95	—
dms., l.c.l., 5 dm. lots or more, works 100 lbs.		6.70	—
tanks, works 100 lbs.		5.60	—
glass grade, bgs., c.l., works, 100 lbs.		17.30	18.00
bgs., l.c.l., works 100 lbs.		17.80	—
Soln., 29° Be. 1:2.5, dms., c.l., works 100 lbs.		4.95	—
dms., l.c.l., 5-dm. lots or more, works 100 lbs.		5.70	—
tanks, works 100 lbs.		4.60	—
Potassium silicofluoride, bgs., works.	lb.	.09½-	.10
Potassium silicofluoride in drums, 0.4c. per lb higher.			
Potassium stannate, dms., frt. alld.	lb.	.814	.887
Potassium sulfate, min. 50% K_2O, agricultural, bulk, c.l., works	unit-ton.	.70½-	.72½
Inside price applies to tonnage contracted for prior to July 1, 1960.			
Outside price applies to tonnage contracted for after that date but also for delivery during the current month.			
Potassium sulfate, NF VII, cryst., dms.,	lb.	.31	.33
NF VII, gran., 400-lb. dm	lb.	.18	—
NF VII, powd., 400-lb dm	lb.	.17	—
Potassium sulfocyanate, NF, cryst., (see Potassium thiocyanate).			
Potassium thiocyanate, NF, cryst., dms., works	lb.	.96	.98
Tech., dms., works	lb.	.77	.79
Potassium titanate, etns., c.l., works,	lb.	.16¼-	—
etns., 5-ton lots, works	lb.	.16½-	—
etns., 1-ton lots or less, works	lb.	.16¾-	—
Potassium-magnesium sulfate, basis 40% K_2SO_4 and 18% MgO, bulk, works, base price.	ton.	13.45	—
bulk, works, July forward	ton.	14.00	—
Potassium-sodium tartrate, NF gran. or powd., 250-lb. dms., c.l., works E	lb.	.42½-	—
250-lb. dms., 5,000-lb. lots, same basis	lb.	.43	—
250-lb. dms., same basis	lb.	.43½-	—
Potassium-titanium fluoride, fib. dms., works	lb.	.39	.40
Potassium-zirconium flouride, fib. dms., c.l., works	lb.	.50	—
fib. dms., l.c.l., works	lb.	.52½-	.55
Pregnenolone, bots.	gram.	No prices.	
Pregnenolone acetate, bots.	gram.	No prices.	
Procaine hydrochloride, USP antibiotic grade, dms., 2,000-lb. lots, frt alld	lb.	2.23	—
Procaine hydrochloride, USP, ampule grade, dms., 1,000-lb. lots, frt. alld	lb.	2.40	—
dms., 500 lbs	lb.	2.45	—
dms., 100 lbs	lb.	2.50	—
Progesterone, USP, bots	gram	No prices.	
Pregnenolone acetate, bots	gram	No prices.	
Propenyl guaethol, dms	lb.	24.30	27.00
b-Propriolactone, tech., dms., c.l., f.o.b. works	lb.	.47½-	—
dms., l.c.l., t.t.l., same basis	lb.	.48½-	—
tanks, same basis	lb.	.45	—
Propionic acid syn., pure, dms., c.l., dlvd	lb.	.23¼-	—
dms., l.c.l., dlvd.	lb.	.24¾-	—
tanks, dlvd.	lb.	.20¾-	—
n-Propyl acetate, dms., c.l., dlvd.	lb.	.14¾-	—
dms., l.c.l., dlvd	lb.	.16¼-	—
tanks, dlvd	lb.	.12¼-	—
n-Propyl alcohol, dms., c.l., dlvd	lb.	.14	.15
dms., l.c.l., dlvd	lb.	.15½	.16½
tanks, dlvd.	lb.	.11½	.12½
n-Propyl gallate, dms., 100 to 2,000-lb lots, works	lb	3.90	4.40
n-Propyl-p-hyroxybenzoate, USP, dms	lb.	2.30	2.40
Propyl thiouracil, bots., 50 kilo lots or more	kilo.	55.00	—
bots., smaller lots	kilo.	55.10	55.30
n-Propylamine, dms., c.l., dlvd	lb	1.24	—
dms., l.c.l. same basis	lb	1.253	—
n-Propylene dichloride consumers', dms., c.l. dlvd. E	lb.	.0843-	—
dms., l.c.l., same basis	lb	.0995-	—
tanks same basis	lb	.07	—
Propylene dichloride prices in West 1c. higher, same basis.			
Propylene glycol, indust., dms., c.l., dlvd E	lb	.15	—
dms., l.c.l., same basis	lb	16¾	—
tanks, same basis	lb	12½	—
USP dms., c.l., dlvd E	lb	17	—
dms. l.c.l., same basis	lb	18¾	—
tanks, same basis	lb	14½-	—
Propylene glycol methyl ether, dms. c.l., dlvd	lb	20	—
dms., l.c.l., same basis	lb	21	—
tanks, same basis	lb	18½-	—
Propylene oxide dms., c.l., dlvd E	lb	17	—
dms., l.c.l., dlvd. E	lb	18½	—
tanks, dlvd. E	lb	14½	—
Psyllium seed, black, bgs	lb.	.42	.45
Blonde bgs	lb	18	20
Husks, bgs	lb	42	45
Pumice, dom., grd. coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots	lb.	03½	04½
bgs., smaller lots	lb.	03½-	—
Imp., Italian silk-screen, coarse, bgs. ton lots	lb	06½	—
fine, bgs. ton lots	lb	04	—
sun dried, coarse, bgs	ton	60.00	—
fine, bgs.	ton.	60.00	70.00


The Long and Short of it:
The shorter film was cast from Airco's VINOL 125 polyvinyl alcohol; the longer, from a comparable grade of a competitive PVA resin. Both films were entirely immersed in 25°C water. Originally both samples were 10 cm long, 2 cm wide and 2.5 mils thick. Two hours later, the VINOL PVA film is 13.0 cm long; the other, 16.5 cm. In addition there is less swelling in the VINOL film.

VINOL POLYVINYL ALCOHOL RESISTS WATER BETTER

Because VINOL 125 resin is super hydrolyzed, films resist water better and retain more of their original strength and abrasion resistance. These properties are characteristic only of PVA produced by Airco's exclusive continuous manufacturing process.

If water resistance is important to your product — in textile finishing; paper sizing and coating; packaging films; protective coatings; binders; adhesives — you should consider VINOL 125.

For technical advice and samples of VINOL 125 call the Airco sales office nearest you.

SALES OFFICES: Berkeley, Calif., LAndscape 6-3365 • Charlotte, N. C., EDison 3-1157 • Chicago, Ill., Bishop 7-6100 • Cleveland, Ohio, MAin 1-3060 Houston, Texas, CApital 8-9353 • Los Angeles, Calif., ANgelus 8-2889 • New York, N. Y., MUrray Hill 2-6700 • Tampa, Fla., Phone 2-2034

AIR REDUCTION CHEMICAL & CARBIDE CO.

A DIVISION OF AIR REDUCTION COMPANY, INCORPORATED • 150 EAST 42nd STREET, NEW YORK 17, NEW YORK • MURRAY HILL 2-6700

AIRCO Vinyl Monomers, Acetylenic Chemicals / Calcium Carbide, Pipeline Acetylene / COLTON Vinyl Resins, Copolymers

Pumpkin seed, bgs ..... lb. .25 - .30
Pyrethrins, syn (see Allethrin).
Pyrethrum flowers, fine grd, 0.9% pyrethrins, bgs., ton, works lb. .50 - —
Powd., 1.3% pyrethrins, bgs., ton, works lb. .71 - —
Pyrethrum liquid, 20-1 basis (2 grams pyrethrins per 100cc odorless base) dms., works, gal. 9.60 - 9.80
100/1 basis (10 grams pyrethrine per 100cc odorless base), dms., works gal. 45.90 - 46.90
Pyrethrum oleoresin, dewaxed, 20%, dms., works lb. 11.00 - 11.35
purif. 20%, dms., works lb. 11.00 - 11.35
Pyridine, denat., dms c.l., works and frt. equald gal. 2.77 - —
dms. l.c.l., same basis gal. 2.80 - —
Refd., 2°, non-ret., dms., c.l., same basis lb. .75½ - —
dms., l.c.l., same basis ..... lb. .76 - .76½
tanks, same basis ..... lb. .71 - —
Potassium persulfate, dms., c.l., works lb. .17½ - —
dms. l.c.l., works lb. .18 - .21
Pyridoxine hydrochloride, USP 500-gram bots., dms., f.o.b. works kilo. 95.00 - 100.00
Pyrites, Canadian, 48-50% S, mines, long-ton. 4.50 - 5.00
Pyrocatechol (see Catechol).
Pyrogallic acid, NF (see Pyrogallol).
Pyrogallic acid, tech., bbls., 100-lbs., f.o.b., works lb. 3.50 - —
Pyrogallol, NF, 100-lb. dms. ..... lb. 3.50 - —
Pyroxylin, USP, bots. ..... lb. 9.50 - —

Q

Quassia chips ..... lb. .10 - —
Quicksilver (see Mercury metal).
Quince seed, bgs ..... lb. 1.75 - 2.00
Quinidine sulfate, USP, 1,000-oz. dm. oz. .78½ - —
Quinine, NF, 1,000-oz. dm. ..... oz. .3750 - —
Quinine bisulfate, USP, 1,000-oz. dm. oz. .28 - —
Quinine hydrochloride, 1,000-oz. dm. oz. .3650 - —
Quinine sulfate, USP, 1,000-oz. dm. oz. .3150 - —
Quinoline, dms., c.l., frt. equald lb. .50¾ - —
dms., l.c.l., same basis ..... lb. .51¼ - —
tanks, same basis ..... lb. .50 - —

R

R salt paste, dms., c.l., t.l., frt. alld., 100% basis lb. .98 - —
Powd., dms., c.l., t.l., frt. alld., 100% basis lb. 1.08 - —
Rapeseed oil, dms. ..... lb. .19 - .19½
tanks ..... lb. .17½ - —
Rare earth oxalate, NF, 45-50%, bgs., works lb. 1.15 - —
Rauwolfia serpentina root, powd., bbls., dms lb. 1.00 - 1.30
Red carmine, No. 40 (see Carmine).
Red oil (see Oleic acid).

RED PIGMENTS

Red pigment quotations are listed individually. For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner.

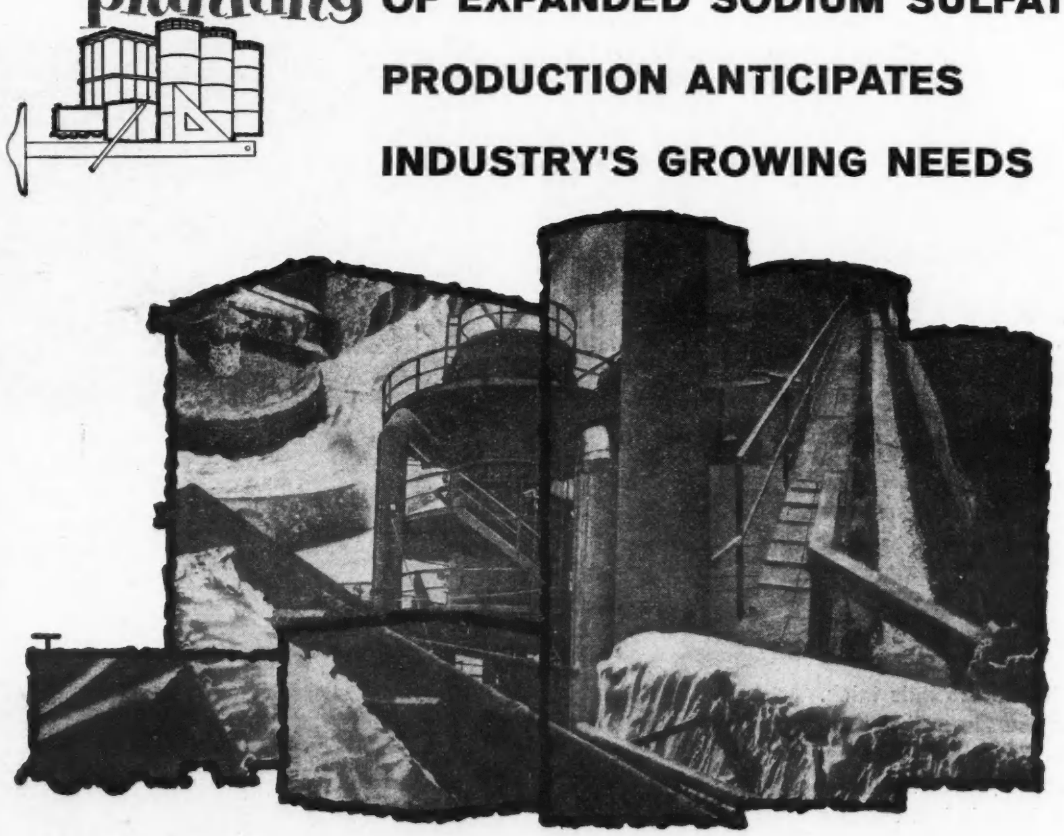
Red precipitate (see Mercuric oxide, red).
Red toner, Lake C, alizanine, bbls., works lb. 1.30 - —
Reserpine, cryst., bots gram 1.25 - —
Resorcinol, tech. grade, bgs., c.l., works, frt. equald lb. 77½ - —
bgs., l.c.l., same basis ..... lb. 78½ - —
Resorcinol in dms., 1c. per lb. more.
USP, powd., dms., works lb. 2.95 - —
Resorcinol monoacetate, NF, dms. lb. 2.50 - —
Rhatany root, bgs ..... lb. .14 - .16
Rhodamine red toner, molybdated, PMA, kgs., works lb. 6.00 - —
Tungstated, PTMA, works, kgs lb. 6.60 - —
Rhodinol, 5-lb. cans ..... lb. 42.00 - 51.00
Synthetic ..... lb. 14.00 - 16.00
Rhubarb root, India, whole, bgs lb. .25 - —
powd., bgs. lb. .35 - —
Riboflavin, USP, fib. dms., kilo or more, dlvd kilo. 36.00 - —
Riboflavin, 5-phosphate-sodium, fib. dms., kilo or more, dlvd. kilo. 104.70 - —
Rice bran oil, clarified, dms., t.c.l. lb. .15½ - —
tanks, dlvd, E. ..... lb. .14 - —
Ricinoleic acid (see Castor oil acids split).
Rochelle salt (see Potassium-sodium tartrate).
Roofing pitch (see Coaltar pitch roofing).
Rose oil, nat., Bulgarian, bots lb. 1,152.00 - —
Turkish, bots., otto ..... lb. 600.00 - 700.00
absolute ..... lb. 145.00 - —
Rosemary oil, Spanish, NF, cns., dms lb. .97 - 1.40
Spanish, tech., cns., dms lb. .50 - 1.20
Rosin gum and wood (see Naval Stores in Protective Coatings market).
Rotenone, fib. dms., works unit-lb. .10½ - —
Resin, 25-45%, fib. dms., works, unit-lb. .10½ - —
Rottenstone, bgs., 5-ton lots, ex-whse lb. .03¾ - —
bgs., ton lots, same basis lb. .04¼ - —
Rubber solvent, petroleum, 115°F-245°F b.r., tankcars, New Jersey and New York gal. .19 - —
Group 3 ..... gal. .13875 - —
Houston, Texas ..... gal. .155 - —
Rue oil, bots ..... lb. 2.75 - 3.00
Rutin, NF, fib. dms., 10 kilo lots. kilo. 11.00 - —
fib. dms., 5 kilo lots ..... kilo. 11.50 - —
fib. dms., 1 kilo ..... kilo. 13.00 - —
Ryania, 100% powd., bgs., c.l., works lb. .22 - —
bgs., l.c.l., same basis lb .24 - —

S

S acid, bbls., works ..... lb. 3.25 - —
Sabadilla seed, activated, ground with lime, bbls lb. .42 - .44
Saccharin, calcium, fib. dms., 1,000-lb lots, works lb. 2.50 - —
Saccharin, USP, gran., soluble, dms., 1,000-lb. lots ... lb. 1.50 - —
dms., smaller lots ..... lb. 1.60 - —
USP, powd., soluble, dms., 1,000-lb. lots lb. 1.55 - —
dms., smaller lots lb. 1.65 - —
USP, powd., insoluble, dms., 1,000-lb. lots lb. 1.53 - —
dms., smaller lots ..... lb. 1.63 - —
Safflower oil, dms., New York ... lb. .1795 - .1820
tanks, Atl., coast ..... lb. .1595 - .1620
Saffron, Mancha Superior, tins lb. 19.50 - —
Safrol, dms. ..... lb .65 - —
Sage, Dalmatian, bgs. ..... lb. .40 - —
Greek, cns. ..... lb .15 - —
Italian, cns. ..... lb .18 - —
Sage oil, clary, bots ..... lb. 12.00 - 15.00
Dalmatian, cns ..... lb 2.85 - 3.25
Spanish, cns ..... lb 1.25 - 1.75
Sal soda (see Soda sal).
Salicylaldehyde, dms., c.l., t.l., f.o.b., plant, frt. equald lb 1.23 - —
dms. l.c.l. same basis lb 1.25 - —
Salicylamide, 100-lb dms lb 1.05 - —
Salicylic acid, tech., fib. dms., c.l., t.l., dlvd lb. .40½ - —
fib. dms. l.c.l. dlvd lb. .44¾ - —
USP, cryst., 200-lb. fib. dms., 1,000 lbs. or more lb. .51¾ - —
200-lb. fib. dms., less than 1,000 lbs lb. .54¾ - —
Cryst., 100-lb. fib. dms., 1,000 lbs. or more lb. .53¾ - —
100-lb. fib. dms., less than 1,000 lbs lb. .56¾ - —
Salicylic acid, USP, powd., 100-lb. fib. dms., 1,000 lbs. or more lb. .58¾ - —
100-lb. fib. dms., less than 1,000 lbs lb. .61¾ - —
Salol, NF, gran., bbls., kgs lb 1.20 - —
Powdered salol, 25c per lb. higher.
Salt, rock, paper bgs., c.l. 100 lbs t.09 - —
Salt, table, vacuum, common, fine, paper bgs., c.l. 100 lbs. 1.34 - —
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis ton. 28.00 - —
Saltpeter (see Potassium nitrate).
Sandalwood, E. Indian, chips, bgs., lb. .55 - .66
powd., fib. dms lb 75 - 76
Sandalwood oil, cns ..... lb. 26.00 - 30.00
Sarcosine, tech., tanks, f.o.b., works, frt. equald lb 1.03 - —
lb. No stocks.
Sassafras oil, artif., dms ..... lb. .45 - —
Nat., dom., dms ..... lb 1.40 - —
Savory oil, cns lb 4.75 - —
Schaeffer's salt, paste, dms., frt. alld. 100% basis lb. .85 - —
Powd., bgs., frt. alld., 100% basis. lb. .95 - —
Scopolamine hydrobromide, USP, bots oz. 13.00 - —
Sebacic acid, CP, bgs., c.l., works lc. .69½ - —
bgs., l.c.l., works lb. .71½ - —
Purified, bgs., c.l., works lb. .65½ - —
bgs., l.c.l., works lb. .67½ - —
Seidlitz mixture, fib. dms., 5,000-lb. lots lb. .30½ - —
fib. dms., smaller lots lb. .31 - .32
Selenium, powd., 99½%, dms., dlvd. lb. 7.00 - —
Senega root, bls ..... lb. 3.00 - 3.25
Senna leaves, Alexandria, whole and half, bls. lb. .20 - .22
siftings ..... lb. .16 - —
Tinnevelly, No. 1, bls. ..... lb. .22 - —
No. 2, bls. ..... lb. .18 - —
No. 3, bls. ..... lb. .14 - —
pods, bls. ..... lb. .28 - —
powd., bbls., bxs. ..... lb. .17 - —
Serpentaria root, bls ..... lb. 6.50 - —
Sesame oil, USP, dms., l.c.l ..... lb. .37 - .38
Sesame seed, Colombian, bgs ... lb. .15½ - —
Lebanese, hulled, bgs ... lb. .19 - —
Nicaraguan, hulled, bgs ..... lb. .21 - —
nat., bgs. ..... lb. .15 - —
Salvadorian, Nat., bgs lb. .16 - —
Shellac, bleached, bonedry, bgs., 1,500-lb. lots lb. .47 - —
dms., l.c.l., works lb .22 - .20¼
bbls., 1,500-lb. lots ..... lb. .46 - —
kgs., 1,500-lb. lots ..... lb. .47 - —
Bonedry shellacs prices for less than 1,500-lb lots 1c. per lb. higher for all packages.
Shellac, bleached, refd., bgs., 1,500-lb. lots lb. .56 - —
bbls., 1,500-lb lots ..... lb. .57 - —
kgs., 1,500-lb lots lb. .58 - —
Shellac, orange, lemon No. 1, bgs., 10-bg. lots lb. .37 - .39
lemon No. 2, bgs., 10-bg. lots, lb. .34 - .37
superfine, bgs., 10-bg. lots lb. .32 - .34
Shellac in 1 to 10-bg. lots 1c. per lb. more.
Shingle stain oil, tar distillate, dms., c.l., works gal. .37 - —
dms., l.c.l., works gal. .48 - —
tanks, works gal. .25 - —
Sienna pigment, burnt, paper bgs., c.l., works lb. .06½ - .18¾
paper bgs., l.c.l., works lb. .06¾ - .17¾
Raw, paper bgs., c.l., works lb. .06¾ - .16¾
paper bgs., l.c.l., works lb. .07 - .17
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton. 25.00 - —
bgs., l.c.l., works, ex whse. ton. 45.00 - 55.00
Silica, hard-quartz, 99½%, 325 mesh, bgs., c.l., works ton. 20.00 - —
bgs., l.c.l., works ton. 25.00 - —
99½% 140 mesh, bgs., c.l., works ton. 15.00 - —
bgs., l.c.l., works ton. 20.00 - —
Silicon tetrachloride, tech., dms., c.l., works lb. .20 - —
tanks, works lb .15 - —
Silver bullion, ingots, es. Troy oz. .91⅜ - —
Silver cyanide, bots., 1,000-oz. lots, oz. 94¾ - —
bots., 500-oz. lots ..... oz. 95¼ - —
bots., 100-oz. lots ..... oz. 96¼ - —

WEST END

advance planning OF EXPANDED SODIUM SULFATE PRODUCTION ANTICIPATES INDUSTRY'S GROWING NEEDS



WEST END demonstrates its complete reliability as a major source by the continuing enlargement of its production facilities devoted to the manufacture of highest quality anhydrous sodium sulfate as a prime product. Independent of other product production and located at the site of vast natural raw material supply, West End is solidly qualified to handle the complete requirements of customers dependably, economically and efficiently.

Stauffer CHEMICALS

WEST END CHEMICAL COMPANY • DIVISION OF STAUFFER CHEMICAL COMPANY

636 CALIFORNIA STREET, SAN FRANCISCO, CALIFORNIA • PLANT: WESTEND, CALIFORNIA

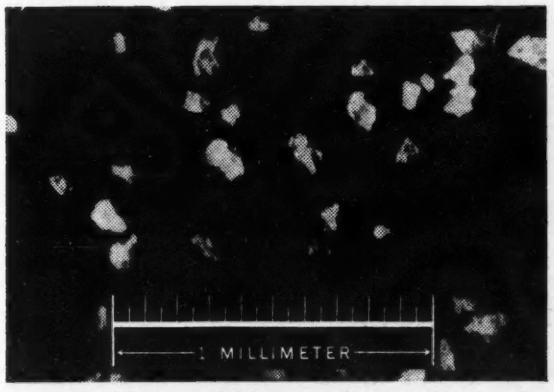
Silver nitrate, CP, cryst., bots., 1,000 to 4,000 oz., f.o.b. works oz. .67¼- —
bots., 250-500 oz., same basis. oz. 67¾- —
USP granular silver nitrate 4c. per oz. higher.
Silver proteinate, mild, USP, 16-oz. bots oz. 1.46 - —
Snakeroot oil, Canada, cns .... lb. 40.00 -43.00
Soapbark, crushed, bls..... lb. .30 .35
Powd., bls. ..... lb. .35 .40
Whole, bls. ..... lb. .20 .25
Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 —
paper bgs., l.c.l., stock pts., 100 lbs. 3.90 4.77
bulk, c.l. works 100 lbs. 1.60 —
Soda ash, light, 58%, paper bgs., c.l., works 100 lbs. 1.85 —
paper bgs., l.c.l., stock pts. 100 lbs. 3.95 4.72
bulk, c.l., works 100 lbs. 1.55 —
Soda caustic, flake, 76%, dms., c.l., works, frt equald 100 lbs. 5.20 - —
liq. 50% sellers tanks works, dry basis 100 lbs. 2.90 - —
50%, rayon type, sellers tanks, works, dry basis 100 lbs. 2.90 3.00
Soda, caustic, liq, 73%, sellers' tanks works dry basis. 100 lbs. 3.00 —
liq., 73% rayon type, sellers' tanks, works, dry basis lb. 3.00 3.10
solid 76% dms. c.l. works, 100 lbs 4.80 - —
Soda sal. conc. bgs. c.l. works 100 lbs. 2.50 - —
bgs. smaller lots, works 100 lbs. 2.80 - —
Sodium acetate annyd., bgs., c.l., dlvd. E lb. .14½- —
bgs., l.c.l., same basis lb. .16½- —
NF, 60% gran. dms. c.l., works, lb. .15½- —
dms. l.c.l., works lb. .17½- —
Sodium alginate, NF, white powd., dom. 300 lbs. or more lb. 1.02 - —
Sodium p-aminosalicylate, dms., 100-lb lots or more, frt, adjusted lb. 1.90 - —
Sodium antimonate bgs. c.l. dlvd. E lb. .27½- —
bgs., l.c.l. dlvd. E lb. .29 - —
Sodium arsenate, 60% arsenic pentoxide, 200 lb. dm. less than ton lots, f.o.b. works lb. .24 - —
ton lots or more, same basis. lb. .23½- —
Sodium arsenite, 94% soluble pink powder, 75% arsenious oxide, dealers, 100-lb dms., ton lots or more, f.o.b., works lb. .18½- —
1,600-1,900 dms., same basis lb. .19 - —
100-500 dms., same basis lb. .20 - —
Sodium ascorbate, dms., 100-kilos., dms., f.o.b. works kilo. 6.80 - —
less than 100-kilos kilo. 7.05 - —
Sodium benzoate tech., dms., c.l., t.l., frt. alld lb. .35 - —
dms., l.c.l. same basis lb. .39 - —
USP, dms., ton lots, same basis lb. .43 - —
dms., 1,000-lb lots, same basis. lb. .45 - —
Sodium bicarbonate, USP, gran., bgs., c.l. works 100 lbs. 2.95 - —
bgs., l.c.l., works 100 lbs. 3.85 - —
USP powd., bgs. c.l., works, 100 lbs. 2.55 - —
bgs., l.c.l. works 100 lbs. 3.45 - —
Sodium bichromate, gran., ngs., c.l., t.l., works lb. .13 - —
bgs. l.c.l. works lb. .13½- .14¾
Sodium bichromate in dms. ⅝c. per lb higher
Sodium bifluoride, fib, dms., c.l., works, frt. equald lb. .19½- —
fib. dms., l.c.l., same basis lb. .2025- —
Sodium bisulfate bulk c.l. works. 100 lbs. 2.00 —
dms., c.l., frt. equald 100 lbs. 3.00 3.60
dms., l.c.l., frt equald 100 lbs. 3.50 4.10
Sodium bisulfite anhyd., bgs., c.l., works 100 lbs 5.00 - —
bgs., l.c.l., works 100 lbs 5.45 - —
Soln., 35° bbls. c.l., works. 100 lbs 1.70 - —
bbls. l.c.l. works 100 lbs 2.20 - —
Sodium borate (see Borax)
Sodium borohydride powd., dms., c.l., works lb. 19.90 —
dms., l.c.l., works lb. 33.00 -40.00
stabilized water soln., 12% NaBH, 100% basis, dms., works lb. 15.00 - —
Pelletized sodium borohydride $1 per lb. higher in 1,000-lb lots.
Sodium bromide USP, gran. dms., works lb. .40 - —
Sodium carbonate, cryst. monohydrated (see Soda, sal)
Sodium carbonate, monohydrated, bgs., c.l., works 100 lbs. 3.10 - —
bgs., l.c.l. works 100 lbs. 3.50 - —
Sodium carboxymethyl cellulose (see CMC).
Sodium chlorate, cryst., 350-lb. dms., c.l., works lb. .09 —
dms., l.c.l. works lb. .09½- .10½
Sodium chlorate in 100-lb. dms., only, ¼c. per lb. higher.
Sodium chloride, tech. (see Salt).
Sodium chloride, USP, gran., bgs. lb. .05 - —
Sodium chlorite, tech., dms., c.l., works lb. .58 - —
dms., 20-dm lots or more works. lb. .66 - —
dms., smaller lots, works lb. .70 - .73
Sodium chloroacetate, tech., dms., c.l., works lb. .27 - —
dms. l.c.l., works lb. .28 - —
Sodium chromate, anhyd., fib. dms., c.l., t.l., works lb. .14¾- —
fib. dms. l.c.l., works lb. .15¼- .16½
Sodium chromate tetrahydrate, bgs., c.l., t.l., works lb. .1015- —
bgs., l.c.l. lb. .1065- .1190
Sodium citrate anhyd., 200-lb dm., f.o.b works E lb. .62 - —
NF VIII, gran. bgs., c.l., same basis lb. .26 - —
USP XIV, gran. bgs., c.l., same basis lb. .29 —
Sodium citrate, USP, powd prices ½c higher.
Sodium cyanate, dms., 1,000-lb lots, works lb. .85 —
dms., smaller lots, works lb. .90 1.10
Sodium cyanide, briquettes or gran., 97 percent min., dms., works, 20,000-lb lots lb. .176 - —
dms., same basis, 5,000 to 19,999-lb lots lb. .188 - —
dms., same basis, 1,000 to 4,900-lb lots lb. .198 - —
Sodium cyclamate, 100-lb dm., f.o.b. works lb. 1.93 - —
Sodium diacetate, anhyd., 39-41% acetic acid, dms., c.l., works lb. .18 —
250-lb dms. c.l., works lb. 18¾- —
Tech., 33-35% acetic acid, dms., l.c.l., works lb. .15 —
250-lb dms. l.c.l. works lb. 15¾- —
Sodium dimethyl dithiocarbamate, 40% soln. dms. c.l., t.l. frt. alld., 100% basis lb. 42 —
dms., l.c.l., t.l., same basis lb. .47 .53
tanks, same basis lb. 38 —
Sodium ferrocyanide, bgs., 10-ton lots lb. 13½- —
bgs., smaller lots ..... lb. .14¾- —

Sodium fluoride, white, 97%, fib. dms., c.l., works, frt. equald lb. .1390- —
fib. dms., l.c.l., works, frt. equald lb. .1465- —
Sodium formate, bgs., c.l., works. 100 lbs. 7.05 - —
bgs., l.c.l., ex whse 100 lbs. 8.65 - —
Sodium gentisate, 100-lb. fib. dms. lb. 5.50 - —
Sodium gluconate, refd., 250-lb. dm., f.o.b. works E lb. .84 - —
Tech., bgs., c.l., t.l., same basis lb. .34 - —
Sodium hydride, 50% soln. in oil, dms., works lb. 1.25 - 2.50
25% soln. in oil, dms., 50 lbs. or less, f.o.b shipping point. lb. 2.20 - —
dms., 50-99 lbs. same basis lb. 1.77 - —
dms., 100-999 lbs., same basis lb. 1.20 - —
dms., 1,000 lbs or more, same basis lb .93 —
Sodium hydrosulfide (see Sodium sulfhydrate).
Sodium hydrosulfite dms. c.l., frt. alld lb. 23½ —
dms., l.c.l. frt. alld. lb. 25¾- —
Sodium hydroxide, NF, pellets, 100-lb dms., 1 to 100-dm. lots. lb. 23½- .28
Sodium hydroxide, tech. (see Soda, caustic).
Sodium hypophosphite, NF, dms. 1,000-lb. lots lb. .99 - —
Sodium hyposulfite (see Sodium thiosulfate).
Sodium iodide, USP, 300-lb. dms., f.o.b. works lb. 2.13 - —
Sodium lauryl sulfate, dms., c.l., dlvd lb. .30½- —
dms., l.c.l., dlvd. lb. .21½- —
tanks, dlvd. lb. .19½- —
Sodium lignin sulfonate, bgs., c.l., works 100 lbs. 4.25 6.50
t.c.l., bgs., works 100 lbs. 4.40 7.00
Sodium metabisulfite (see Sodium bisulfite).

Sodium metaborate octahydrate, gran. bgs. c.l., works ton 210.00 - —
bgs., ton lots, ex whse 100 lbs. 8.30 - —
bgs., smaller lots, ex whse 100 lbs. 9.61 -11.51
Tetrahydrate, bgs. c.l., works ton 210.00 —
bgs., ton lots, ex whse 100 lbs. 14.83 - —
bgs., smaller lots, ex whse 100 lbs. 16.08 -18.08
Sodium, metallic, bricks, c.l., works. lb. .21 —
Fused, 18,000-lb lots or more, works lb. .19½- —
tanks, works lb. .17 - —
Sodium metalinate, bbls., frt. alld. lb. .62 - —
Sodium metaphosphate, bgs., c.l., f.o.b. shipping pt 100 lbs. 11.10 - —
bgs., l.c.l., same basis 100 lbs. 11.85 - —
dms., c.l., same basis 100 lbs. 11.70 - —
dms., l.c.l., same basis 100 lbs. 12.45 - —
Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs. 5.70 - —
bgs., 6,000-19,900 lb. lots, works. 100 lbs. 6.05 - —
dms., c.l., works 100 lbs. 6.20 - —
dms., l.c.l., works 100 lbs. 6.55 - —
Sodium metasilicate pentahydrate, bgs., c.l., works 100 lbs. 4.45 - —
bgs., l.c.l., works 100 lbs. 4.80 - 6.75
dms., l.c.l., works 100 lbs. 4.95 - —
dms., l.c.l., works 100 lbs. 5.30 - 7.25
Sodium molybdate, anhyd., dms., works, frt. equald lb. .92 - .99
Cryst., dms., works, frt. alld lb. .74 - .76

Sodium monoglutamate (see Monosodium glutamate)
Sodium monohydrate (see Sodium carbonate monohydrated)
Sodium naphthionate, bbls..... lb. .77 - —
Sodium nitrate, dom., crude, bgs., c.l. works ton 48 00 - —
bulk, c.l., works ton 44 00 - —
Imp., crude, 100-lb. bgs., c.l., Atl., Gulf, Pac., whse ton 48.00 - —
bulk, c.l., same basis ton 44.00 - —
Sodium nitrite, USP bbls., c.l. works, frt. equald 100 lbs. 9.40 - —
bbls., l.c.l., same basis 100 lbs. 11.40 - —
Sodium orthosilicate conc., dms., c.l., works 100 lbs 6.70 —
dms., l.c.l., works 100 lbs 7.05 7.65
Hydrated, flake, bbls., c.l., works 100 lbs 5.65 —
bbls., l.c.l., works 100 lbs 7.60 7.90
Sodium oxalate, 98%, bgs., works 100 lbs. 12.35 - —
99%, bgs., works 100 lbs. 15.40 - —
Sodium para-aminobenzoate (see Sodium p-aminobenzoate)
Sodium para-aminosalicylate (see Sodium p-aminosalicylate).
Sodium pentachlorophenate, briquets, dms., c.l., works, frt. equald lb. 26 —
dms., l.c.l., same basis lb .27½ 34
Pellets, dms., c.l., same basis lb. 26 —
dms., c.l., same basis lb .27½ 34
Powd., dms., c.l., same basis lb. 25 —
dms., l.c.l., same basis lb. 26½ 28

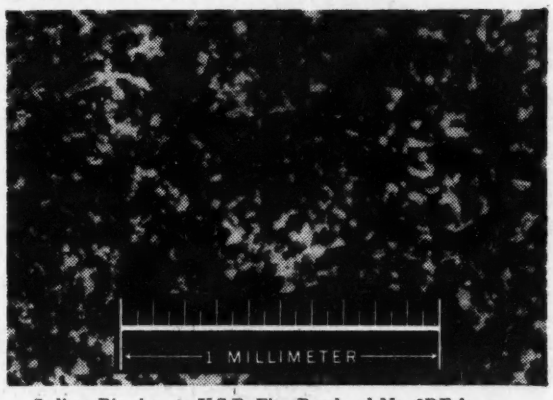
Get Sodium Bicarbonate in the grain size you need every time... FROM CHURCH & DWIGHT



Sodium Bicarbonate U.S.P. Powdered No. 1—For general purpose use in chemical processing, dyestuffs, adhesives, starches, textiles and industrial applications.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

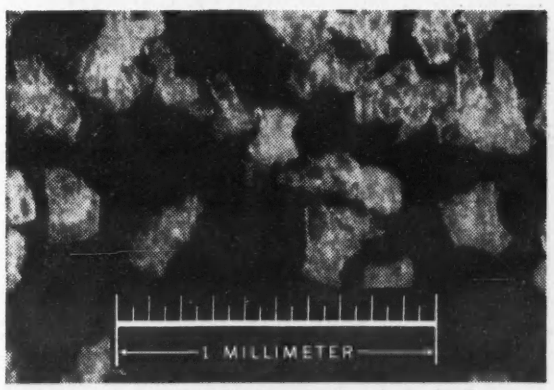
42 Mesh	Trace	200 Mesh	35.0%
100 Mesh	.5%	325 Mesh	70.0%
170 Mesh	20.0%	400 Mesh	80.0%



Sodium Bicarbonate U.S.P. Fine Powdered No. 3DF for use specifically in dry powder fire extinguisher mixes, also in rubber and plastics blowing, lubricant for sheet vinyl.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

170 Mesh	Trace	325 Mesh	25.0%
200 Mesh	2.0%	400 Mesh	45.0%



Sodium Bicarbonate U.S.P. Granular No. 5 for use in effervescent salts, other pharmaceuticals and special types of cleansers.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

42 Mesh	Trace	100 Mesh	92.5%
65 Mesh	27.0%	170 Mesh	99.0%
80 Mesh	66.5%		

Sodium Bicarbonate U.S.P. Treated Free-Flowing for use in fire extinguishers and sponge rubber.

TYPICAL SCREEN ANALYSIS
CUMULATIVE PERCENT RETAINED BY

42 Mesh	Trace	200 Mesh	35.0%
100 Mesh	.5%	325 Mesh	70.0%
170 Mesh	20.0%	400 Mesh	80.0%

Are you getting Sodium Bicarbonate of the specific grain size for optimum results in your process or for maximum shelf life and performance of your products? You can eliminate doubts by specifying Church & Dwight. This simple step will assure you of obtaining the widest selection of grain sizes available because Church & Dwight is the country's largest supplier of Sodium Bicarbonate U.S.P. You'll also receive for the asking unmatched technical service based on more than 100 years of experience with Sodium Bicarbonate. Unusual grain size requirements are given special attention. Try us and see. For technical data on all grades of Sodium Bicarbonate, send for brochure, "Church & Dwight Sodium Bicarbonate—How It Serves Industry Today."

CHURCH & DWIGHT CO., INC., 70 PINE STREET, NEW YORK 5, N. Y.

Sodium pentabarbital, USP, dms., 100 lbs. or more lb 6.00 - —
Sodium perborate NF, tech., bgs., c.l., works lb. .18½- —
bgs. l.c.l. works lb. .19 .31
Sodium peroxide, dms., c.l., t.l., dlvd E of Miss lb. .21½- —
dms., l.c.l., same basis lb .22 .32½
Sodium phenobarbital USP 100-lb dms lb. 3.75 —
Sodium phenosulfonate, USP, LX, gran., dms lb. .52 .53
NF powd. dms lb. .55 .56
Sodium phosphate dibasic, anhyd., bgs. c.l. frt equald 100 lbs. 8.10 —
bgs., l.c.l., same basis 100 lbs 8.50 9.55
Sodium phosphate, dibasic, cryst., bgs., c.l., t.l., frt equald 100 lbs. 4.75 —
bgs., l.c.l., frt. equald 100 lbs 5.15 5.90
Dibasic duohydrate bgs., c.l. frt equald 100 lbs. 7.75 - —
bgs., l.c.l., same basis 100 lbs. 8.25 - —
Monobasic anhyd bgs. c.l. frt equald 100 lbs. 9.15 —
bgs., l.c.l., same basis 100 lbs. 9.55 -10.15
Tribasic anhyd. bgs c.l. frt equald 100 lbs. 9.15 - —
bgs. l.c.l. frt equald 100 lbs. 9.60 -10.20
Sodium phosphate in dms 60c to 80c higher than bgs
Sodium phosphate, USP, dried, powd., bgs., dms., works lb. .19 .20½
Sodium picramate, tech., paste, dms., f.o.b. works, frt. equald lb. .90 - —
Sodium propionate, any quantity, dms. dlvd E of Rockies, lb. .37 - —
Prices W of Rockies 3c per lb more.
Sodium prussiate yellow (see Sodium ferrocyanide)
Sodium pyrophosphate, acid, bgs., c.l., works, frt equald 100 lbs. 11.25 —
bgs., l.c.l., same basis 100 lbs. 12.00 -12.50
Sodium pyrophosphate, ferric, dms., c.l., t.l. works lb. .36 —
dms. l.c.l. works lb. .37 .39
Tetrabasic, anhyd., bgs., c.l., works, frt equald 100 lbs. 7.55 - —
bgs., l.c.l., same basis 100 lbs. 8.30 - —
Sodium salicylate USP dms., 1,000-lbs or more lb. 78½- —
dms. less than 1,000 lbs. dms. lb. .81½- —
Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.35 —
l.c.l., dlvd. zone 1 100 lbs. 4.10 - 4.35
dlvd zone 2 100 lbs 4.35 4.60
dlvd. zone 3 100 lbs 4.75 4.90
dlvd zone 4 100 lbs 5.35 5.60
Sales zones are (1) Atl. states E. of Miss., R and N of south bound of Ky. and Va., Ala., La and Miss. south of 31°; Tex E. of 100°; S. of 31° Fla.; also Me., N. H. and Vt. in which there are special county zones; Davenport, Ia., and St. Louis; (2) Ark. E. of 98° Ga.; Iowa (except Davenport) Minn., Mo. (except St. Louis) Neb. E. of 98° N. C., S. C., Tenn and Tex. N. of 31 and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No of 31°; (3) Ark W of 98° Kan., Neb W. of 98° N. D., Okla., S. D., Tex., W of 100° (including Wichita Falls excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah Wyo and El Paso Tex
Sodium sesquisilicate anhyd., bgs., c.l., t.l., works 100 lbs 5.70 —
dms c.l. t.l., works 100 lbs 6.20 —
hydrated, bgs., c.l., works 100 lbs. 5.00 - —
bgs. 6,000-19,900 lb lots, works 100 lbs 5.35 —
dms., c.l., works 100 lbs 5.50 —
dms. 6,000-19,900 lb lots works, 100 lbs 5.85 —
Sodium silicate, liq., 40° Be 1:3.2, turbid dms. c.l. works 100 lbs 1.65 —
dms., l.c.l., works 100 lbs 1.90 2.40
tanks works 100 lbs 1.20 —
47° Be 1:29.9 turbid, dms., c.l., works 100 lbs 2.25 —
dms., l.c.l., works 100 lbs 2.60 3.45
tanks, works 100 lbs 1.90 —
52° Be 1:2.4 turbid, dms., c.l., works 100 lbs 2.65 —
dms., l.c.l., works 100 lbs 3.00 3.50
tanks, works 100 lbs 2.30 —
Solid, 1:3.2 bgs. works ton 67.50 —
Sodium silicofluoride, bgs., c.l., works lb. .065 —
bgs. l.c.l., works lb 725- —
Sodium silicofluoride in dms. 0.4c per lb. higher
Sodium stannate dms. works frt. alld. E lb. .678 - .737
Sodium sulfa drugs (see Sulfa name)
Sodium sulfanilate bbls. works lb. .22 —
Sodium sulfate NF Vii. dried, powd., dms lb. .22½- —
Tech. anhyd. bgs. c.l. dlvd E. ton 56.00 - —
Tech., detergent, rayon grade, bgs., c.l., works ton 38.00 - —
bulk, c.l., works ton 34.00 —
USP cryst. f/b dms lb 17½ .18
Sodium sulfhydrate, flake 70-72% dms. c.l. works, frt equald lb 07¼- —
dms., l.c.l., same basis lb 08¼- —
Liq. 40-44% tanks works, 100% basis ton 130.00 —
Sodium sulfide flake, dms., c.l., works E, frt equald lb 06 —
dms. l.c.l., same basis lb 07 —
Fused bbls., c.l. works E., frt. equald lb 05½ —
bbls. l.c.l. same basis lb 06½- —
anhyd., tech., bgs., c.l., works, 100 lbs. 3.50 - —
bgs l.c.l. same basis 100 lbs 4.00 - —
Sodium sulfite anhyd., powd., bgs., c.l., works 100 lbs 7.55 —
bgs. l.c.l. same basis 100 lbs 7.95 —
Sodium sulfocyanide CP (see Sodium thiocyanate)
Sodium tetraborate (see Borax)
Sodium tetrasulfide liq. 40% dms., c.l., works frt equald lb 04½- —
dms. l.c.l same basis lb .05½- —
Sodium thiocyanate, purified, cryst., 250-lb dms lb. .90 - —
Tech anhyd. dms., 1 ton lots or more, works lb .367 - —
dms., less than ton lots, works lb .387 - —
Sodium thiosulfate NF cryst. bbls. lb 13½- —
Tech anhyd. 100-lb bgs. c.l. t.l., frt equald 100 lbs 7.75 —
100-lb bgs l.c.l. t.l., frt equald 100 lbs 8.15 —
photograde, 64-lb. bgs., c.l., t.l., frt. equald lb. .0775- —
64-lb bgs l.c.l. t.l. frt. equald lb .0815- —
Sodium thiosulfate, tech., pentahydrate, photo grade, 100-lb. bgs., c.l., t.l., frt. equald, 100 lbs. 4.95 - —
100-lb. bgs., l.c.l., t.l., frt. equald 100 lbs 5.20 - —

Sodium titanate, etns., c.l., works lb. .14¼- —
etns., 5-ton lots, works lb. .14½- —
etns., 1-ton lots or less, works lb. .14¾- —
Sodium trichloroacetate, 90%, 100-lb. dms., c.l., frt alld E. lb. .35 - —
50-lb. dms., c.l., frt. alld. E lb. .35½- —
10-lb cns., c.l. frt alld E lb 42 —
Prices on Sodium trichloroacetate W of the Rockies are 1¾c per pound higher.
Sodium tripolyphosphate, bgs., c.l., works, frt. equald 100 lbs. 7.90 - —
bgs., l.c.l., same basis 100 lbs. 8.65 - —
bulk, hopper cars, same basis, 100 lbs. 7.35 - —
Sodium trisilicate, powd., 1:3.2, bgs. c.l., works 100 lbs 8.95 —
bgs., l.c.l., works 100 lbs 9.70 -13.13
dms., c.l., works 100 lbs 9.45 —
dms., l.c.l., works 100 lbs. 10.20 -10.60
Sodium tungstate, tech, kgs. dlvd. E lb. 1.32 - —
Sodium-ammonium phosphate, purif., cryst., dms., works lb .52 - —
Sodium-carboxymethyl cellulose (see CMC).
Sodium-cinchophen (see Cinchophen-sodium).
Sodium formaldehyde sulfoxylate dms., t.l., dlvd lb. .22½- —
dms., l.t.l., same basis lb .23 - —
Sodium-zirconyl sulfate, f/b dms. 1,000-lb lots or more works lb .28 —
f/b. dms., smaller lots, same basis lb .30 - —
Solvent naphtha, coaltar, high-flash, tanks, frt equald gal. .30 .35½
Solvent naphtha, petroleum, straight aromatic, 310°-360° F b.r., 14° 16°C m.a.p., tankcars, New Jersey and New York gal. .29 - —
Houston, Texas gal. .29 - —
355° 420° F. b.r., 17° 18° C. m.a.p., tankcars, New Jersey and New York. gal. .30 - —
Houston, Texas gal. .30 - —
Solvent naphtha, petroleum, partial aromatic, 211°-265°F b.r., 31°C. m.a.p. tankcars, New Jersey and New York gal. .235 —
286°-340°F. b.r., 22°C m.a.p., tankcars, New Jersey and New York gal .275 —
319°-380°F. b.r., 27° C. m.a.p., tankcars, New Jersey and New York gal. .27 - —
322 395° F b.r., 28° C m.a.p., tankcars, New Jersey and New York gal .28 —
Sorbitan monostearate f/b dms., 20,000-lb lots, works lb. .33½- —
10,000 to 20,000-lb. lots, works. lb. .35½- —
f/b dms., smaller lots, works lb. .38½ .40½
Sorbitan tristearate f/b dms. 20,000-lb lots, works lb. .34 —
f/b dms. 10,000 to 20,000-lb lots, works lb .36 —
f/b dms., smaller lots, works lb. .39 .41
Sorbitol, NF reg., 70% aqueous, dms., c.l., works lb .18 —
dms., l.c.l. works lb. .19 —
tanks, works lb. .16¼- —
cryst. resin grade pellets, dms., c.l. works lb .23 —
dms. 1 to 5-ton lots works lb .25 .26
powd., dms., c.l., works lb. .38½ —
dms. 10,000 to 20,000 lb. lots, works lb 40½ —
Sorbitol, soln., coml., aqueous, dms., c.l., works lb. .26 - —
dms., l.c.l., works lb. .27 - —
tanks, works lb. .23¼- —
Soya protein, chemically isolated, old process, bgs., c.l., works. lb .23 —
bgs. l.c.l., works lb .23¼ .23½
Chemically isolated new process, bgs., c.l., works lb. .20 - —
bgs., l.c.l., works lb. .20¼- .20½
Soybean meal, 44%, bulk, unrestricted, Decatur ton. 75.70 - —
Soybean oil, crude, tanks, Decatur, lb. .13½ Nom.
Foots, soapstock acid 95%, tanks, New York lb. .06½ Nom.
Soybean oil, alkali, refd., dms lb. .1760- .1785
tanks lb. .1560- —
Clarified, dms. lb. .1710- .1735
tanks lb. .1510- —
Salad, refd., dms. lb. .17⅝- .17⅝
tanks lb. .15⅜- —
Soybean oil acids, dbl. dist., dms., lb. .16¾- .19¼
tanks lb. .14¼- —
S. D., dms lb. .15½- .18
tanks lb. .13 - —
Sparteine sulfate, cns., 100 oz. or more oz. .80 —
Spearmint leaves, dom bis lb 75 —
Spearmint oil, NF, dms lb. 5.25 - —
Sperm oil, bleached winter, 45° dms lb. .1675- .1775
tanks lb. .1475- —
Nat., winter 45° dms lb. .1575- .1675
tanks lb .1375- —
Spermaceti wax, blocks, cs lb. .32 .33
Cakes, cs. lb. .33 .34
Spruce oil, cns., dms lb 2.10 3.55
Squill, white, bls. lb 16 18
Powd., bbls. bxs lb 17 20
St. John's bread, edible, bls lb 17 —
Stannic chloride anhyd. dms. works lb. .845 - .867
Stannic oxide, dms., dlvd lb. 1.092 - 1.305
St. nnous chloride anhyd. dms works lb. 1.105 - 1.305
Hyd., dms., works lb. — - —
Stannous sulfate, dms., works lb. 1.102 - 1.142
Star root (see Helonias root)
Stargrass root (see Aletris root.)
Stavesacre seed, bgs lb .60 61
Stearic acid, dbl., pressed, bgs lb. .18 - .21½
Single-pressed, bgs. lb. .17½- .20
Triple-pressed, bgs. lb. .19¾- .22¼
Stoddard solvent, petroleum, tanks, east coast, New Jersey, New York gal. .18 —
tanks, Houston gal. .1475- —
tanks, group 3 gal 12875- —
Stramonium leaves, bgs. lb. .16½ .18
Streptomycin sulfate, bulk gram. .028 - .03
Strontium bromide, NF, cryst., gran., 150-lb dm., frt. equald lb. 1.00 - —
Strontium carbonate, pure dms. 5-ton lots or more, works lb .35 - —
dms. 1-ton lots, works lb .37 - —
Tech., dms., works lb 19 - —
Strontium chromate f/b dms. dlvd. E lb .48 —
Strontium iodide jars, 25-lb lots lb 3.57 —
Strontium nitrate bgs. c.l. works 100 lbs. 11.00 —
bgs., l.c.l., works 100 lbs. 12.00 - —
Strontium salicylate NF, dms lb 1.88 —
Strontium sulfate, air floated, 90% 325 mesh bgs. works. ton. 56.70 66.15
Strophanthin G (see Ouabain USP).
Strophanthin K, bots. oz. 25.00 -28.50
Strophanthus seed, Kombi, biologically tested, bgs lb. 2.50 - 3.00
Styrax gum, USP, cs. lb. 4.50 5.50
Styrene monomer, polymer grade, 99.6%, dms., c.l., dlvd lb. .17 - —
dms., l.c.l., same basis lb. .19 - —
tanks, frt. equald. lb. .13 - —
Styrene monomer, tech., 99.2%, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., same basis lb. .17 - —
tanks, frt. equald lb. .1099- —
Above prices are escalated for each calendar quarter on the basis of cost of benzene in the range of 31c. to 34c. a gallon and petroleum refining labor.
Styrolyl acetate, bots lb. 1.03 1.10
Succinic acid, purif., cryst., dms., t.l., frt. alld lb. .62 —
dms., l.t.l., same basis lb. .63 - .75
Succinic anhydride dms. c.l., t.l., dlvd lb. .51 - —
dms., l.c.l., same basis lb. .52 - —
Sucrose, refd. white bgs. refy E. lb. .0940- —
Sucrose acetate, isobutyrate, 90%, dms. t.l., dlvd lb. .33½- —
dms., l.t.l., same basis lb. .35 —
tanks, same basis lb. .31 —
100%, t.l., dms., dlvd. lb. .35½- —
l.t.l., dms., same basis lb. .37 —
Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs. l.c.l. works lb. 1.00 - —
Sugar (see Sucrose).
Sugar cane wax, dom., refd., slabs, 80-lb ctns., works lb. .60 .65
80-lb ctns. spot lb. .65 .75
Sulfabenzamide, dms. kilo 8.80 9.90
Sulfabenzamide-sodium, dms. kilo. 9.00 -10.10
Sulfacetamide, USP, f/b dms kilo. 6.61 6.83
Sulfacetamide-sodium USP, f/b. dms kilo. 8.15 9.25
Sulfadiazine, USP, microcrystals, dms kilo. 23.35 -24.45
USP, powd., dms. kilo. 22.60 -23.70
Sulfadiazine-sodium, USP, dms kilo. 24.80 -25.90
Sulfaguanidine, NF X, dms kilo. 5.50 6.60
Sulfamerazine, USP, microcrystals, dms kilo. 23.50 - —
Sulfamerazine-sodium, USP, powd., dms kilo. 24.80 25.90
Sulfamethazine USP XV microcrystals, dms kilo. 19.65 -20.75
USP XV, powd., dms kilo. 18.75 -19.85
Sulfamic acid, cryst. dms., c.l., t.l., works 100 lbs. 16.00 —
dms. l.c.l., t.l., works 100 lbs. 17.50 18.50
Gran., dms., c.l., t.l., works. 100 lbs. 14.75 —
dms., l.c.l. t.l., works 100 lbs. 16.25 -17.25
Sulfanilamide NF reg. 1,000 lb., f/b. dms., frt. equald lb. 1.75 - —
NF, reg., smaller lots, f/b. dms., frt. equald lb. 1.80 - —
Sulfanilamide quinoxaline, veterinary dms kilo. 16.28 - —
Sulfanilic acid, tech. dms. c.l., frt. alld lb. .21 - —
dms., l.c.l., frt alld lb. .23 - —
Sulfapyridine, USP XV, powd., bots., tins kilo. 15.45 -16.55
Sulfapyridine-sodium, mononydrate, dms kilo. 16.55 -17.65
Sulfathiazole, NF X, microcrystals, dms kilo. 6.25 6.90
NF X, powd. dms. kilo. 5.50 6.15
Sulfathiazole-sodium, NF X, dms., 1,000-lb. lots or more lb. 2.35 —
Sulfur, coml. flour, bgs., mines, 100 lbs. 2.35 - —
bbls., mines 100 lbs. 3.30 - —
lump, bgs., mines 100 lbs. 2.25 - —
bbls., mines 100 lbs. 2.80 - —
Sulfur crude, dom. bright, bulk, f.o.b. cars, mines long-ton. 23.50 - —
export, f.o.b vessels, Gulf ports, long-ton. 25.00 - —
US and Canada, f.o.b vessels Gulf ports long-ton. 25.00 —
Domestic dark sulfur prices are $1 per long-ton lower
Sulfur, crude, imp. Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos long-ton. 24.00 —
Mexican dark sulfur price is $1 per long-ton lower.
Sulfur, refd., flowers, NF, bgs., mines 100 lbs. 5.65 - —
bbls., mines 100 lbs. 7.00 - —
flour, light, bgs., mines 100 lbs. 5.25 - —
bbls., mines 100 lbs. 6.25 - —
lump, bgs., mines 100 lbs. 4.95 - —
rolls, bgs., mines 100 lbs. 5.50 - —
bbls., mines 100 lbs. 6.25 - —
salt block, bgs., mines 100 lbs. 4.65 - —
virgin block, bbls., mines 100 lbs. 4.70 - —
Sulfur, rubbermakers, coml., reg., bgs., mines 100 lbs. 2.45 - —
bbls. mines 100 lbs. 3.70 - —
98-100%, passing through 325 mesh, bgs. mines 100 lbs. 2.55 - —
bbls., mines 100 lbs. 3.80 - —
Refd., bgs., mines 100 lbs. 4.90 - —
bbls., mines 100 lbs. 6.05 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs. 2.75 - —
bbls. mines 100 lbs. 4.00 - —
Sulfur dichloride, ret. dms., c.l., works, frt. equald lb. .05½- —
ret. dms., l.c.l., same basis lb. .06¾- —
tanks, same basis lb. .04½- —
Sulfur dioxide, liq. coml., cyls., works, frt. equald lb. .10 - .13
multi-unit cars, works lb. .0535- —
tanks works lb. .045 —
refrigeration, cyls., dlvd lb. .33 - —
Sulfur monochloride 55-gal. non-ret. dms., c.l., frt. equald lb. .05½- —
dms., l.c.l., same basis lb. .06¾- —
tanks, same basis lb. .04½- —
Sulfuric acid, 60° Be, cbys., c.l., works 100 lbs. 2.00 —
cbys., l.c.l., works 100 lbs. 2.30 - —
tanks, works ton. 18.60 - —
66° Be, cbys., c.l., works 100 lbs. 2.25 - —
cbys., l.c.l. works 100 lbs. 2.55 3.35
tanks, works ton 22.35 —
98%, tanks, works, East ton. 23.50 - —
99%, tanks, works, East ton. 23.70 - —
100%, tanks, works, East ton. 23.95 - —
Sulfuric acid, California works, tanks ton. 26.45 - —
CP, NF consumers cbys. c.l., frt. equald lb .12¾- —
Consumers' cbys., l.c.l., same basis lb. .14¼- .14¾
5-pt. bots. extra cs. c.l., works, frt alld lb. .16¼- —
5-pt. bots. extra cs. l.c.l., same basis lb .17¾- .18¾
Sulfuric acid fuming (oleum), 20% tanks, works ton. 25.00 - —
40% tanks, works ton 29.00 - —
65% tanks works ton. 39.50 - —
Superphosphate run-of-pile under 22% a.p.a., pulv., bulk, c.l., Baltimore unit-ton. .90 .93
bulk, c.l. Carteret, N. J. unit-ton. .90 .93
Superphosphate triple 48% or more a.p.a., pulv bulk c.l. East Tampa, Fla. unit-ton. 1.00 - —
bulk f.o.b vessel at Fla unit-ton 1.05 - —
Sweet birch oil, USP, northern cns lb 4.00 9.50
USP, southern, cns lb. 2.00 3.05

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2,4,5-T, dms., c.l., works, frt. equald. lb. 1.18 - —
dms., l.c.l., same basis lb. 1.25 - —
2,4,5-T, isopropyl ester, dms., c.l., works, frt. equald lb. 1.24 - —
dms., l.c.l., works lb. 1.29 - —
Talc, dom., fibrous, grd., bgs., c.l., works, New York ton. 28.00 - —
bgs., l.c.l., works ton. 31.00 -36.00
fibrous, 99.5%, 325 mesh, bgs., c.l., works, New York ton. 31.00 - —
bgs., l.c.l., works ton. 34.00 - —
Talc, dom., fibrous, 99.95%, 400 mesh, micronized bgs., c.l works ton. 38.00 - —
625 mesh, micronized, bgs., c.l., works ton. 80.00 - —
Talc, dom., ord., Calif., grd., bgs., c.l., works ton. 34.00 -39.50
Vermont, off-color, grd., bgs., c.l., works ton. 19.40 - —
bgs. l.c.l., works ton. 37.00 - —
imp., Canadian, grd., bgs., c.l., mines ton. 20.00 -35.00
tanks, works lb. .02⅞- .03⅛
Tall oil, crude, tanks, works lb. .03¼- —
Dist. depending on grade, dms., c.l., works lb. .07 - .09¼
tanks, works lb. .05¼- .08
Refd., depending upon grade, dms., c.l., works lb. .07¾- .08¼
tanks, works lb. .06½- .07⅛
Tall oil acids, dms., c.l., works lb. .07 - .10
dms., l.c.l., works lb. .07½- .10½
tanks, works lb. .05 - .07⅛
Tallow, edible, tanks dlvd lb. .11 Nom.
Inedible, fancy, bleachable, tanks, lb. .08⅜- —
fancy, guaranteed, bulk, f.o.b. steamer lb. .09 - .09⅛
dms., f.a.s. lb. .10 - .10⅛
tanks, dlvd. lb. .08¾- —
No. 1, dlvd lb. .07⅞- —
Prime, tanks, dlvd lb. .08⅛- —
Special tanks, dlvd lb. .08 - —
Sulfonated, 25%, bbls., l.c.l. lb. .08½- .08¾
50%, bbls., l.c.l. lb. .10½- .11
Tallow acids, dist., dms. lb. .14½- .17
tanks lb. .12 - —
Hydrogenated, dms. lb. .16¾- .19¼
Tallow oil, acidless, dms., c.l. lb. .14 - —
dms., l.c.l. lb. .16 - —
tanks lb. .12½- —
Tangerine oil, Florida, dms lb. 4.75 —
Tankage, animal, teeding, 9-11% ammonia, New York bulk unit-ton. 4.75 5.00
Tannic acid NF fluffy, bbls., 1,000-lb lots lb 2.05 —
bbls., smaller lots lb 2.06 2.07
powd., bbls., 1,000-lb. lots lb. 1.95 - —
bbls., smaller lots lb 1.96 1.99
Tech., dms lb. 1.05 —
Tansy oil, dms lb. 6.60 8.00
Tar acid oil, 15-18%, dms., c.l., dms., t.c.l., same basis gal. .55½- —
tanks, same basis gal. 43½- —
25-28%, dms., c.l., frt. equald. basis gal. .53½- .60 —
dms., t.c.l., same basis gal. .62 —
tanks, same basis gal. .50 —
50-53%, dms. c.l., same basis gal. .75 —
dms., t.c.l., same basis gal. .77 —
tanks same basis gal. .65 —
Tar coal (see Coaltar).
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid NF 100-lb bgs., c.l., frt. equald lb. .41 —
bgs. 10,000 lbs. 1 shipt., same basis lb. .43 —
bgs., smaller lots, same basis lb. .47 —
Terpine hydrate, NF, cryst., powd., 100-lb. f/b. dms lb. .70 —
Terpineol, extra, dms lb. .50 .60
Prime, dms. lb. .40 .50
Terpinyl acetate, extra cns., dms. lb. .64 .75
Prime dms lb .53 .56
Terpinyl propionate, dms lb. 1.65 1.70
Testosterone USP bots gram No prices.
Testosterone propionate, USP bots. gram No prices.
Tetrachloroethane, dms, works lb. .14½ —
Tetrasodium pyrophosphate (see Sodium pyrophosphate)
Tetrachloroethylene, tech. (see Perchloroethylene)
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works lb. .20½ —
dms. l.c.l., works lb. .22 .23½
Tetraethyl orthosilicate, dms., c.l., dlvd E lb. .60 —
dms. t.c.l. dlvd. E works lb. .61½- —
Tetraethyl pyrophosphate, 40%, cns., dms., frt. equald lb. .75 —
Tetraethylenepentamine, dms., c.l., dlvd. E lb. .53½- —
dms., t.c.l., dlvd. E lb. .55 - —
tanks, dlvd E lb. .51 - —
Tetraethylthiuram disulfide, tech., dms., frt alld lb. 1.04 —
Tetrahydrofuran, dms. c.l., t.l., works lb. .36½- —
dms., t.c.l., or l.t.l., works lb. .37 - —
tanks, works lb. .35 —
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb. .31½- —
dms., t.c.l. Memphis, Tenn lb. .32½- —
dms., c.l. t.l., Newark, N.J lb. .33½- —
Tetrahydrofurfuryl alcohol, dms., l.c.l., Newark, N. J. lb. .28½- —
tanks, dlvd. E. of Denver lb. .25 - —
tanks, dlvd. W. of Denver lb. .26 - —
Tetrahydrophthalic annydride dms., c.l., t.l., frt. alld. E lb. .39 - —
t.c.l., t.t.l. same basis lb. .41 - —
Tetrapotassium phosphate (see potassium phosphate)
Thallium metal, dlvd lb. 7.50 -10.00
Thallium sulfate, 99% bots. dlvd. lb 5.00 -10.00
Theobromine, NF, f/b dms., 100-lbs., f.o.b., works lb. 4.10 4.15
Theobromine and sodium acetate, USP, f/b dms., 500-lbs. works lb. 6.45 —
Theobromine, sodio-salicylate, NF, f/b. dms., 500-lbs., works. lb. 3.80 - —
Theophyline, USP, anhyd., 100-lb. dms., frt alld lb. 3.65 - —
Thiamine hydrochloride, USP, f/b. dms., frt alld kilo. 38.00 - —
USP ampule grade, f/b., dms., frt alld kilo. 38.00 - —
Thiamine mononitrate, USP, f/b. dms. frt alld kilo. 36.00 - —
Thiocarbanilide, dms., ton lots lb. .74 - —
dms., less ton lots lb. .76 - —
Thiodiphenylamine (see Phenothiazine)
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works lb 5.20 - —
Tungstated, PTMA, kgs works lb 6.20 - —
Thioglycolic acid, refd., 55 gal dms., ton lots, 100% basis lb 1.15 - —
Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works lb 4.00 - —
Thiourea, tech, bgs. t.l. frt alld. lb. .30 - —
bgs., ton lots, same basis lb. .32 - —
bgs., less than ton lots, same basis lb. .33 - —
Thorium nitrate, purif., f/b dms., 100-lb. lots or more, works lb. 3.50 - —

dl-Threonine, dms., 25 kilos, works, kilo 115.00 - —
Thyme leaves, French, tripie sifted extra, bgs lb .27 - —
Spanish, extra, bgs lb .12 - —
tripie sifted, bgs lb .25 - —
Spanish, bgs. lb .09 - —
Thyme oil, NF, red, cns., dms. lb. 3.35 - 3.60
NF, white, cns lb. 3.60 - 3.95
Tech., white, cns lb. .80 - 1.10
Thymol, fib dms., 25-lbs., f.o.b. works lb 2.43 - —
Thymol iodide, NF, dms., 100-lbs f.o.b. works lb 7.30 - —
Timbo root (see Cube root)
Tin chloride (see Stannous chloride, anhyd.)
Tin crystals (see Stannous chloride, hydrous)
Tin metal (Straits) lb. 1.09 - —
Tin oxide (see Stannic oxide)
Tin sulfate (see Stannous sulfate)
Tin tetrachloride anhyd (see Stannic chloride anhyd.)
Titanium dioxide anatase ceramic, bgs., c.l., divd lb .25½ —
bgs., t.c.l., divd lb .26½ —
reg., bgs., c.l., divd. lb .25½ —
bgs., t.c.l., divd lb .26½ —
metallurgical, nat., bgs., c.l., f.o.b. Jacksonville, Fla. ton 180.00 —
Titanium dioxide, metallurgical, nat., bgs., 5-ton lots, Niagara Falls, N. Y. ton 205.00 - —
bgs., con lots, same basis ton 215.00 —
Milled metallurgical titanium dioxide $7.50 per ton higher
Titanium dioxide rutile, nonchalking, bgs. c.l., divd E lb. .27½ —
bgs., t.c.l., divd E lb. .28½ —
Titanium dioxide calcium pigment, 30% Ti O2, reg., bgs., c.l., divd lb. .09⅜ —
bgs., t.c.l., works lb. .09⅞ —
50% Ti O2, high-tinting, dms. c.l., lb. .14⅜ —
dms. t.c.l. lb. .14⅞ —
Titanium hydride powd., dms., works lb. 8.10 9.00
Titanium tetrachloride, tech. dms., c.l., works lb .26 —
dms., t.c.l., works lb .27½ - .29
tanks, works lb 20 —
Tobias acid, dms. c.l., t.l. lb. .81 - —
dms. t.c.l. lb. .84 - —
d-a-Tocopherols, NF, mixer, conc. pure basis, bots kilo. 67.00 - —
d-a-Tocopheryl acetate, NF, conc., pure basis, bots kilo. 122.00 - —
d-a-Tocopheryl acid succinate, cryst., bots kilo 109.00 —
dl-a-Tocopherol, bots kilo 99.00 —
dl-a-Tocopheryl acetate, bots kilo. 90.00 —
25% dry powd., bots kilo. 22.50 -24.00
33⅓% dry powd., bots kilo. 30.00 -31.50
o-Tolidine base, dry, kgs., 100% basis lb 1.55 —
Paste, kgs., 100% basis lb 1.50 —

TOLUOL

Toluol quotations, both coaltar and petroleum, may be found under Toluene.

o-Tolidine hydrochloride paste, kgs., 100% basis lb. 1.50 —
Tolu balsam, cns lb. 4.00 - —
Toluene, coaltar, indust., or nitration tanks, divd E. of Rockies gal. .25½ - —
Toluene, petroleum, indust. tanks, f.o.b., frt. equald gal. .25 - —
p-Toluenesulfonamide, powd., dms. t.l., works lb. .50 - —
dms. t.t.l. same basis lb .63 - —
Toluenesulfonic acid, 55-gal. dms., t.l. frt. alld lb .18 - —
1,000-lb or more, same basis lb. .18 - —
less than 1,000-lb., same basis lb. .23 - —
tanks, same basis lb. .14 - —
Toluenesulfonic acid in 10-gal. dms. 2c per lb more.
p-Toluenesulfonic acid mononydrate, dms., c.l., or t.l lb. .90 - —
dms. 125 lbs to t.l. lb. 1.00 - —
m-Toluidine, dms. c.l., works, frt. alld lb. .83 - —
dms., t.c.l., same basis lb. .84 - —
tanks, same basis lb. .82 - —
o-Toluidine dms. c.l., works, frt. alld lb. .30 - —
dms., t.c.l. same basis lb .31 - —
tanks, same basis lb. .28 - —
p-Toluidine tech. flake, dms., frt. alld lb. .50 - —
Cast, dms. frt. alld lb. .45 - —
p-Toluidine-m-sulfonic acid, dms., works lb. .92 1.04
Toluidine red toner, deep shades, kgs., works lb. 1.70 - —
Light shades, kgs. works lb. 1.70 - —
2,4-Tolylenediamine, cryst., fib. dms., t.c.l., frt alld lb. 1.10 - —
Tonka beans, Angostura, cks. lb. 1.50 - —
Brazilian, Surinam cs lb. 1.30 - —
Totaquine, 100-oz lots, cns. oz. .42 - —
Toxaphene, dms. c.l. t.l., works. lb. .22 - —
dms. t.c.l. t.t.l., works lb .28 - —
Tragacanth gum, No. 1, ribbons cs lb 4.10 4.20
No. 2, cs. lb. 3.75 3.80
No. 3, cs. lb. 3.40 3.65
USP, powd. bbls. lb 1.05 1.15
Triacetin, dms., c.l., divd. E. of Rockies lb. .39 - —
dms., t.c.l. same basis lb. .40 - —
tanks, same basis lb. .37 - —
Triallylamine, dms., c.l., divd lb. .985 - —
dms., t.c.l., divd. lb. .995 - —
tanks, divd lb. .96 - —
Tributyl citrate, tech., non-ret. dms., c.l., frt alld E of Denver, lb. .42½ - —
non-ret. dms., t.c.l., frt alld, E. of Denver lb. .43½ - —
tanks, frt alld E of Denver lb. .40 —
Tributyl phosphate, dms., c.l., works, lb. .52½ - —
dms, t.c.l. same basis lb. .53½ - —
tanks, same basis lb. .50 - —
Tributylamine, dms., c.l., works lb. .67½ - —
dms., t.c.l., same basis lb. .69 - —
tanks, same basis lb. .65 - —
Tributyrin, dms. t.c.l. divd lb. .69 - —
Trichloroacetic acid, tech., 300-lb. dms. c.l., f.o.b. works lb. .52 - —
USP, 100-lb. dms., frt. equald lb. 1.25 - —
Trichlorobenzene, dms., c.l., frt alld, E. lb. .15 - —
dms., t.c.l., frt. alld, E. lb. .16 - —
tanks, frt. alld E. lb 13¼ —
Trichlorobenzene prices in the West 1¾c. higher
1,1,1-Trichloroethane, dms., c.l., divd. lb .13¼ —
dms., t.c.l., divd lb. .16 - —
tanks, divd lb. .12¼ - —
1,1,2-Trichloroethane, dms., c.l., works lb. .13½ - —
dms., t.c.l., works lb. .16¼ - —
tanks, works lb. .13½ - —
Trichloroethylene, dms. c.l., or t.l., divd lb. .12½ - —
dms., t.c.l., divd. lb. .14 - .14½
tanks, divd. lb. .11¼ - —
Trichloroisocyanuric acid, dms., c.l., t.l. frt equald lb 65 - —
dms t.c.l. same basis lb 75 - —
Trichlorophenoxyacetic acid, see 2,4,5-T).

Tricholine citrate, 65% soln., rot. cbys., works, frt. adjusted lb. 1.40 - 1.48
Tricresyl phosphate, coaltar, dms., c.l., divd lb. .25 - —
dms., t.c.l., divd. lb. .26 - —
tanks, divd lb. .32½ - —
Tricresyl phosphate, petroleum, dms., c.l., divd lb. .35 - —
dms., t.c.l., divd. lb. .36 - —
tanks, divd. lb. .32½ - —
Tridecyl alcohol, mixed isomers, dms., c.l. divd. E lb. .26½ - —
dms., t.c.l., divd. E lb. .28 - —
tanks, divd E lb. .24 - —
Triethanolamine, dms. c.l., divd E. lb. .24½ - —
dms., t.c.l., same basis lb. .26 - —
tanks, same basis lb. .22 - —
Triethanolamine lauryl sulfate, dms., c.l., t.l. frt. alld lb. .25½ - —
dms. t.t.l. frt alld. lb. .26½ - —
tanks, frt. alld lb. .24½ - —
Triethylamine, dms. c.l., divd E. lb. .50 —
dms., t.c.l., same basis lb. .51½ - —
tanks, same basis lb. .47½ - —
Triethyl citrate, refd., tech., non-ret. dms. c.l., frt alld E. of Denver lb. .46¼ - —
non-ret. dms., t.c.l., frt alld. E. of Denver lb. .47¼ - —
tanks frt alld E of Denver, lb. .43¾ - —
Triethyl phosphate, dms., c.l., divd. lb. .40½ - —
dms., t.c.l., divd. lb. .42 - —
tanks, divd. lb. .38 - —
Triethylene glycol, dms., c.l., divd. E lb. .21 —
dms., t.c.l., divd. E lb. .22½ - —
tanks, divd. E lb. .18½ - —

Triethylenetetramine, dms., c.l., divd. E lb. .51¼ - —
dms., t.c.l., divd. E lb. .53 - —
tanks, divd. E lb. .49 - —
Triisobutylene, tanks, divd. lb. .08 - —
Tri-isopropanolamine, dms., c.l., divd. E lb. .23¼ - —
dms., t.c.l., divd. E lb. .24¾ - —
tanks, divd. E lb. .20¾ - —
Trimethylamine, anhyd., cyls., t.c.l., frt. equald, 100% basis lb. .30 - .305
tanks, frt. equald, 100% basis, lb. .26 - —
25-40% soln. dms. c.l., frt. equald, 100% basis lb. .35 - —
dms., t.c.l., frt. equald, 100% basis lb. .35½ - —
tanks, 100% basis, frt. equald lb. .26 - —
Trimethylolpropane, dms., c.l., t.l., divd. E lb. .30½ - —
dms., t.c.l., t.t.l., same basis lb. .31½ - —
Trioxanes, pure, dms., c.l., t.l., works lb. .50 —
dms., t.c.l., works lb. .51½ - —
Tripentaerythritol, bgs., c.l., t.l., divd. E lb. .34 - —
bgs., t.c.l., t.t.l., divd. E lb. .35 - —
Triphenyl phosphate, bbls., c.l., frt. equald lb. .41½ - —
bbls. t.c.l., frt. equald lb. .43½ - —
Triphenylguanidine, bbls., works lb. .90 —
Tripropylene dms., c.l., divd. E gal. .44 - —
dms., t.c.l., same basis gal. .54 - —
tanks, same basis gal. .28 - —

Tripropylene glycol, dms., c.l., t.l., frt alld E lb. .20¼ - —
dms., t.c.l. t.t.l. frt. alld. E lb. .22 - —
tankcars and compartmented tankcars, frt alld E lb. 17½ - —
tankwagon and compartmented tankwagon, 1,000 gals., min. frt. alld. E lb. .18 - —
Tripropylene glycol prices 1c per lb higher in west
Trisodium phosphate (see Sodium phosphate tribasic).
dl-Trypophane, dms., 1 kilo, works kilo 154.00 —
Tung oil, dms., New York lb. .28¾ - .29¼
tanks, imported lb. .27¼ - —
tanks, domestic, mills lb. .27¼ Nom.
Tungsten metal powd. 2.0-2.5 microns, dms., works lb 4.25 —
Tungstic acid tech. dms., 1,000-lb lots, works lb 2.25 —
dms., smaller lots, works lb 2.45 —
Turkey red, bbls. works lb 62 —
Turpentine, gum (see Protective Coatings market, Naval Stores)
Turpentine oil NF cns. dms lb 28 50
Tuscan red bbls frt equald lb 26 32
Tyrothricin USP, 1 to 5 kilos gram .50 —

U

Ultramarine blue, cobalt type, dry or pulp 250-lb bbls., divd. E. of Rockies lb. .30½ - .35

"Why the enthusiasm? Because users of new, improved Varsol find that it keeps its long lasting sweetness after numerous processings or long storage periods. A unique hydrofining process, developed by Esso Research, makes possible this major solvent development. Quality controlled Varsol, like all Esso solvents, reaches your plant fresh, uniform and on schedule from modern, conveniently located storage terminals. For further information or expert technical assistance call your Esso Representative or write to us at 15 West 51st St., N.Y. 19, N.Y. (And tell 'em Nosey sent you!)" Nosey

ESSO STANDARD, DIVISION OF
HUMBLE OIL & REFINING COMPANY Esso

Ultramarine Blue—2,4-Xylidine

Ultramarine blue, jobbing types, dry, bbls., same basis	lb.	.16	.22½
Regular types dry bbls. same basis	lb	.16	.37½
Ultramarine blue prices 1c higher W of Rockies			
Umber pigment, burnt, American, bgs., c.l., works	lb	07½	07¾
bgs. l.c.l. works	lb.	07¾	.08
turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N.Y.	lb.	.08¼	—
Raw, American bgs works	lb	07¾	08¼
Turkey type bgs works	lb	08½	08¾
Undecylenic acid 55-gal dms., f.o.b works	lb	1.28	—
Unicorn root (aise (see Helonias root)			
Unicorn root, true (see Aletris root).			
Urea 46% N (indust bgs., c.l. t.l., f.o.b plant	ton.	100.00	—
Feed grade, c.l., t.l., f.o.b. plant.	ton.	95.00	—
45% N, agricultural, bgs., c.l f.o.b plant	ton.	92.50	—
Bulk, c.l., t.l., same basis	ton.	86.50	—
Urea ammonia liquor A, B, C & F grades, N basis, tanks frt. equaid	ton.	120.00	—
37 grade tanks same basis	ton.	145 00	—
Urethane USP dms. t.l., f.o.b., works	lb	65	—
dms t.l.l., same basis	lb	70	—
Uva ursi leaves, bls	lb	.13	—

V

Valerian root, Belgian bgs.	lb	.32	—
Indian, bgs	lb	25	—
dl-Valine, dms., 1 kilo, works	kilo.	37.00	—
Vanadium pentoxide, tech dms works	lb	1.38	—
Vandyke brown, bbls., works	lb	09½-	.13
Vanilla beans, Bourbon, tins	lb.	6.90 -	7.10
Mexican cuts, tins	lb.	7.10 -	7.40
whole, tins	lb.	7.50 -	8.50
Vanillin ex lignin, 100-lb. fib dms., 2,000-lb. lots or more	lb.	3.00	—
less than 2,000 lbs	lb	3.20	3.30
Venetian red jobbing, bgs. works	lb	0475-	—
Venetian red 20%, bgs., works	lb	0525-	—
25%, bgs., works	lb	0575-	—
30%, bgs., works	lb	06	—
35%, bgs., works	lb	0625-	—
40% bgs., works	lb	0675-	—
Vetiver oil, Bourbon, cns	lb.	17.00	-17.25
Haitian, cns.	lb.	12.00	-14.00
Victoria blue toner, molybdated, PMA 250-lb. bbls., dlvd. E. of Rockies	lb	4.50	4.95
Tungstated, PTMA, 250-lb bbls., dlvd E of Rockies	lb	5.55	—
Victoria blue toner, bbls., prices 1c. higher W of Rockies.			
Vinyl acetate monomer, zone 1, 55-gal, dms., c.l., dlvd	lb.	.1810-	—
55-gal. dms., l.c.l., dlvd	lb.	.1960-	—
tanks, dlvd.	lb.	.1560-	—
tanktrucks less than 4,000 gal., dlvd	lb.	.1610-	—
Vinyl n-butyl ether, tech., dms., l.c.l., works	lb.	.50	—
Vinyl chloride monomer, tanks, works, min. frt. equald E.	lb.	.0696-	—
Vinyl ether, USP, anethesia, bots., 50cc., hospitals	bot	1.12	—
bots., 75cc., hospitals	bot	1.56	—
Vinyl ethyl ether tech. dms., c.l., works	lb.	.30¼-	—
dms., l.c.l., works	lb.	.31	—
tanks, works	lb.	.28¼-	—
Vinyl propionate monomer, dms., c.l. dlvd	lb	49	—
dms. l.c.l., same basis	lb	.50	—
tanks, same basis	lb.	.47	—
Vinyl trichloride (see Trichloroethane).			
2-Vinylpyridine, 10 dms to tanks, works	lb	1.20	—
1 to 9 dms., works	lb	1.35	—
tanks, works	lb	1.15	—
Vinyltoluene, dms., c.l., f.o.b., works	lb.	.16½-	—
dms., l.c.l., same basis	lb.	.18½-	—
tanks, f.o.b. dest. frt. prepaid	lb.	.14	—
Viosterol in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units		.02½-	—
Virginia type red, bbls., works	lb.	1.40	—
Vitiamin A acetate, syn., cryst., beads, 500,000 A units per gram	gram	.07¼-	—
Vitamin A acetate, dry, 500,000 units per gram, kilo lots	kilo.	65.00	—
325,000 units per gram, same basis	kilo.	43.88	—
250,000 units per gram, same basis	kilo.	33.75	—
Dry vitamin A acetate in less than kilo lots, $1.25 to $2.50 per kilo higher.			
Vitamin A, liq. in oil, 1,000,000 A units per gram 1,000,000 units.		.09½-	—
Vitamin A palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units.		.09½-	—
Vitamin B_1 (see Thiamine hydrochloride).			
Vitamin B_2 (see Riboflavin and Yeast).			
Vitamin B_{12}, cryst., USP (cyanocobalamin), 1-50 grams, vials, tins	gram.	45.00	—
Vitamin B_{12}, 0.1% vitamin B_{12}, USP, adsorbed on gelatin, 100 and 500-gram bots on 1-5 kilo, dms., gram.		.57	—
Vitamin B_{12}, 0.1% vitamin B_{12}, USP, adsorbed on resin, 100 and 500-gram bots., 1-5 kilo dms. gram.		.57	—
Vitamin B_{12}, oral grade solids in containers of 1 and 10 gram of B_{12} activity	gram.	52.00	—
0.1% trituration of cryst., B_{12} with dicalcium phosphate or mannitol, 1-10 kilo.		52.00	—
0.1% trituration of cyanocobalamin, USP, with dicalcium phosphate or mannitol	gm.	52.00	—
USP solution of cyanocobalamin (5,000 micrograms per cc.), 5-gram bots	gram.	52.00	—
Vitamin B_{12}, 0.1% cobalamin concentrate, NF, adsorbed on resin, 500-gram bots., 1-5 kilo dms., frt. alld	gram.	.57	—
0.1% cobalamin concentrate in gelatin 1-10 kilo dms., frt. alld	gram.	.57	—
Vitamin C (see Ascorbic acid).			
Vitamin D_2 (see Codliver and Fishliver oils, Calciferol and Viosterol).			
Vitamin D, dry, 850,000 units per gram, kilo lots	kilo.	42.50	—
850,000 units per gram less than kilo lots	kilo.	45.00	—
Vitamin E (see a-Tocopherol and Wheat germ oil).			
Vitamin H (see Biotin).			
Vitamin K, active (see Menadione).			
Vitamin K_1, 25-gram lots	gram.	4.50	—
Violet methyl toner (see Methyl violet toner).			
VM&P naphtha (see Naphtha, VM&P petroleum).			

W

Wahoo root bark, bls.	lb.	2.00	2.25
Warfarin, 0.5%, dms., 50-lb. lots, dlvd	lb.	1.95	—
dms. 25-49-lb. lots, New York or Chicago	lb	2.05	—
dms. 5-24-lb lots, New York or Chicago	lb	2.15	—
Watchung-type reds., bbls	lb.	1.95	—

WAXES
Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

Wheat germ oil, 5-gal dms.	gal.	12.25	—
White lead (see Lead, white).			
White mineral oil (see Mineral oil, white).			
White pine bark, rossed, bls.	lb	21	.23
White precipitate, USP, powd., dms., 100 lbs. f.o.b works	lb	5.50	—
Whiting (see Calcium carbonate)			
Wild cherry bark, thin, nat., bls	lb.	.30	—
Wintergreen oil, USP, nat northern, cns	lb.	6.35	-17.50
USP, nat. southern cns	lb	3.75	7.00
Wintergreen oil, syn. (see Methyl salicylate).			
Witch hazel bark, bls	lb.	.30	.35
Witch hazel leaves, bls	lb	.75	.80
Wollastonite, fine, paint grade, bgs., c.l., works	ton.	41.00	—
bgs., l.c.l., ex whse	ton.	51.00	—
medium paint grade, bgs., c.l., works	ton.	29.00	—
bgs., l.c.l., ex whse.	ton.	39.00	—
Wood alcohol (see Methanol).			
Wood oil (see Tung oil).			
Woolfat crude (see Degras).			
Woolfat USP (see Lanolin).			
Wormseed Levant bgs	lb	2.50	—
Wormseed oil (see Chenopodium oil NF).			
Wormwood oil, cns	lb.	4.75	—

X

Xylene, coaltar, indust., tanks, works:			
Bethlehem, Pa.	gal.	.29	—
Birmingham dist.	gal.	.29	—
Chicago dist.	gal.	.28½-	—
Cleveland dist.	gal.	.29	—
Geneva, Utah	gal.	.29	—
Johnstown, Pa.	gal	29	—
Lackawanna, N.Y.	gal.	.29½-	—
Lone Star, Tex.	gal	27	—
Lorain, Ohio	gal.	29	—
Middletown, Ohio	gal	30	—
Minnequa, Col.	gal.	29	—
Philadelphia dist.	gal.	29	—
Pittsburgh dist.	gal	29	—
Sparrows Point, Md.	gal	29	—
Terre Haute, Ind.	gal	29	—
Youngstown, Ohio	gal.	29	—
Xylene, petroleum, indust., tanks f.o.b works:			
Bayonne N. J	gal	29	—
Baytown, Tex.	gal.	27	—
Charleston, S. C.	gal.	29	—
Chicago, Ill	gal.	28½	—
Detroit, Mich., dlvd	gal.	27½	.29
Houston, Tex.	gal	27	—
Philadelphia, Pa.	gal.	29	—
Providence, R. I.	gal.	30	—
Sewell's Point, Va.	gal.	28	—
Wood River, Ill	gal.	28½-	—
m-Xylene, 95%, dms., c.l., f.o.b., Richmond, Calif	lb.	.21	—
dms., l.c.l., f.o.b., Richmond, Calif	lb.	.22	—
tanks, frt. alld.	lb.	.19	—
o-Xylene, dms., c.l., works	lb.	.08	—
dms., l.c.l., works	lb.	.09	—
tanks, works	lb.	.06	.06½
p-Xylene, dms., c.l., works	lb.	.20	—
dms., l.c.l., works	lb.	.21	—
tanks, frt. alld.	lb.	.1645-	—
Xylenol, cryst., 45°-47°C., m.p., dms., l.c.l., works, frt. equald	lb.	.23	—
56°-58°C., m.p., dms., l.c.l., works, frt. equald	lb	.33	—
60°-62°C., m.p., dms., l.c.l., same basis	lb.	.40	—
Xylenol fraction, b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis	gal	1.25	—
dms., l.c.l., same basis	gal	1.30	—
tanks, same basis	gal.	1.05	—
b.r. 7°-9° C., dry at or below 227° C., dms. c.l. same basis,	gal	1.35	—
Xylenol fraction, b.r 7°-9° C., dry at or below 227° C., dms., l.c.l., same basis	gal	1.40	—
3,4-Xylidine, tech., dms., frt alld	lb	1.15	—

—Continued on page 48

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Mathieson industrial grade urea is packaged in 100 lb. net, multi-wall, moisture-resistant bags. Bulk, carload and truckload shipments are available, as well as palletized shipments for simplified storage and handling.

For further information on Mathieson Urea, contact your Olin Mathieson district sales office or write to Olin Mathieson Chemical Corporation, Chemicals Division, Baltimore 3, Maryland.

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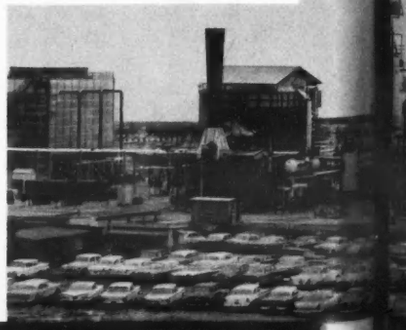
Mathieson Urea is produced in the heart of the industrial East at North Claymont, Delaware, between Philadelphia and Wilmington. Consumers are serviced swiftly over turnpike and main-line rail routes. At the same time, nearby major port cities provide rapid export and coastal service on a wide choice of vessels and barges.



the first urea plant in the industrial east

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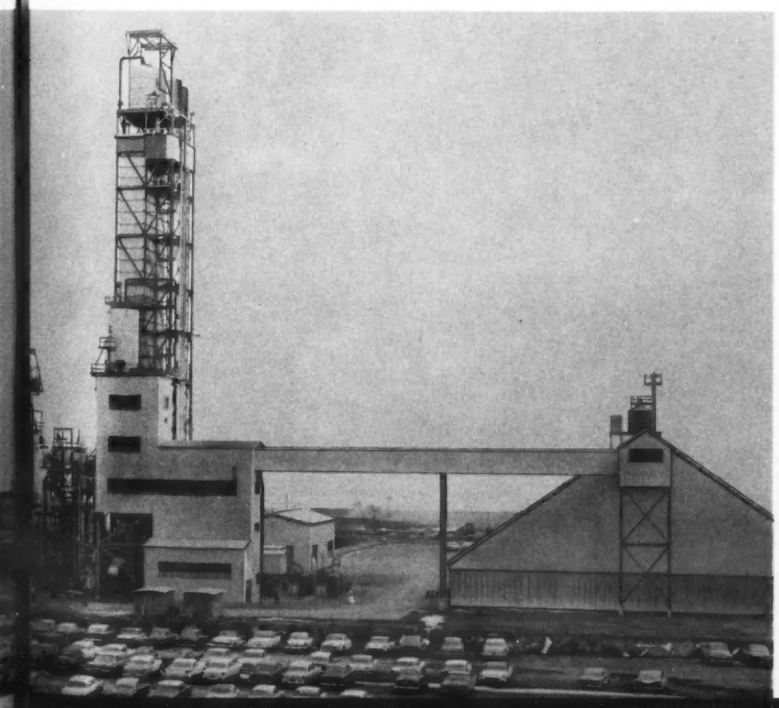
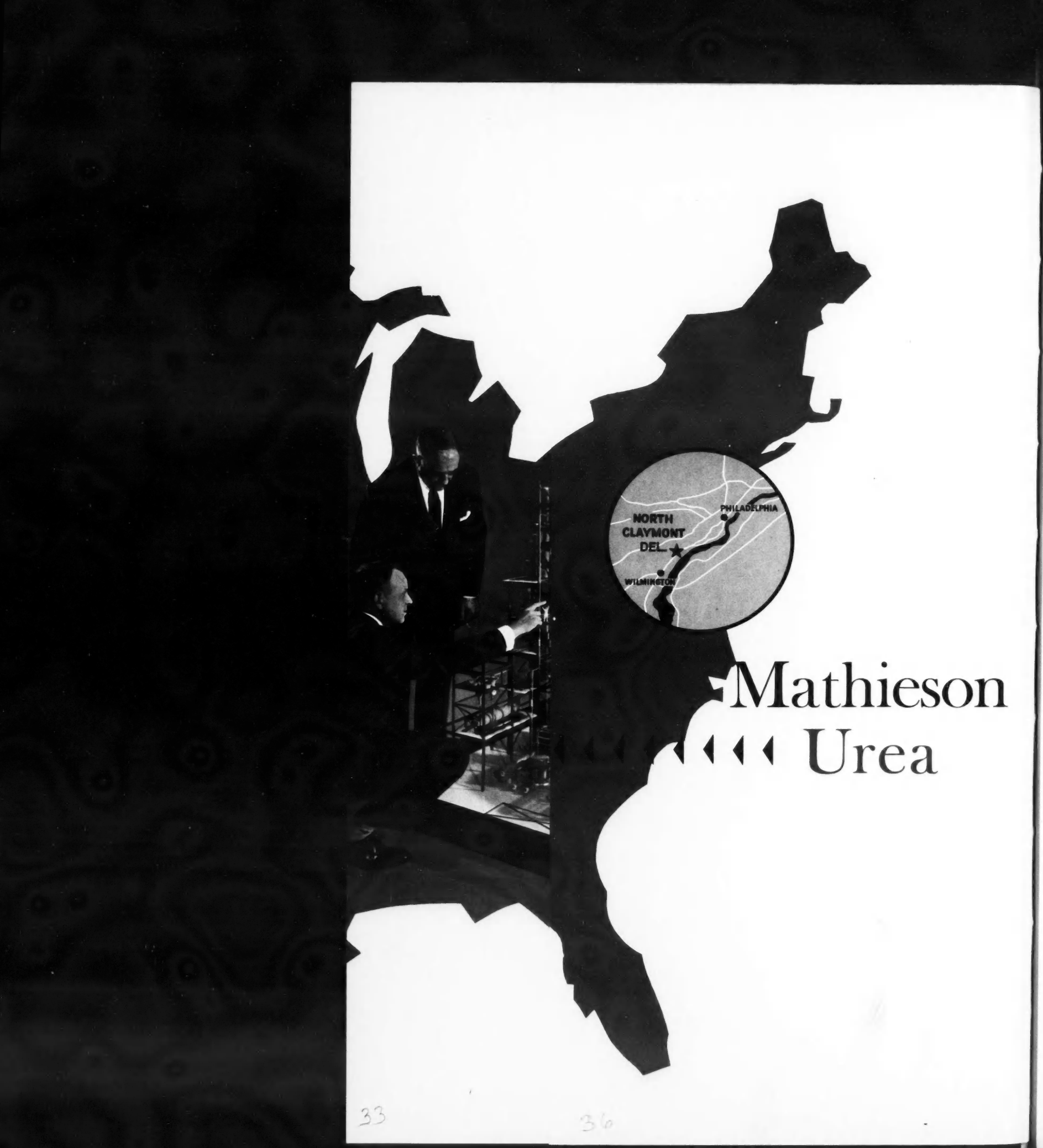
HIGH PURITY UREA FOR BETTER END PRODUCTS

PRODUCT QUALITY Mathieson Urea is manufactured under rigid quality controls to exacting specifications by the famous Montecatini process. The result is a consistently high-purity product that meets the standards established for all Mathieson chemicals.

CUSTOMER SERVICE Customer requirements receive alert, day-to-day follow-up. Mathieson's wide experience in the marketing of chemicals, its seasoned staff of technical service specialists and its network of district sales offices all combine to provide well-integrated customer service.

SPECIFICATIONS (Shipping limits)	CRYSTAL	PELLET
Total N, %	46.0 min.	46.0 min.
Biuret, %	0.25 max.	1.5 max.
pH (10% sol. at 20°C)	7.0—9.5	7.5—9.8
Moisture, %	0.4	0.5
Free ammonia, ppm	30 max.	170 max.
Ash, ppm	30 max.	40 max.
Iron, ppm	1.5 max.	2.0 max.
Color, A.P.H.A. (10 % MeOH sol.)	7	10 max.
Turbidity, A.P.H.A. (50 gm in 100 ml MeOH)	18	20 max.





Mathieson Urea

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Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

Founded October 18, 1871 by William O. Allison
Directed 1900-1942 by Harry J. Schnell

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ASSISTANT PUBLISHER: J. Stuart Auchincloss

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WASHINGTON EDITOR: Ralph L. Cherry, 956 National Press Building, Washington 4, D.C.
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SCHNELL PUBLISHING COMPANY, INC., 30 Church Street, New York 7, N. Y.
(RE 2-9820) Cable Address: Reporter, New York
PRESIDENT: William S. Auchincloss
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Volume 179 April 17, 1961 No. 16

Drug Counterfeiting

Perhaps it was to have been expected that the position of the Food & Drug Administration with respect to the prevalence and potentialities of drug counterfeiting would be at least about what the commissioner was quoted to have said in the article on that serious practice beginning on page 5 in OPD last week. The Landis criticism of federal regulatory agencies had a sound foundation and a broad scope.

Drug counterfeiting and other manipulating, especially in standardized official products, have been quite common practices in all areas of the drug trade for many years. [This statement is made by one who was apprenticed in pharmacy in 1898.] For that reason, the FDA Commissioner's urging that "retailers insist upon receiving drugs only in original, sealed manufacturer's packaging" runs far wide of his goal. The unethical druggists who, as he says, cooperate in the racket will not follow his recommendation.

It is to be hoped that the disclosing of conditions that attend the counterfeiting of drugs will arouse the general public to a demand for preventive and remedial means which will get the legislative and administrative responses that the interests of public health and welfare demand and deserve.

It is difficult to conceive why the New Jersey grand jury in the case that has put drug counterfeiting in the headlines could find no basis for criminal charges. But, such is the letter of the law. Something helpful may turn up as a result of the order by the Governor of New Jersey that the state's Attorney General investigate all aspects—and inferences—of the jury's presentment which criticized the efficiency of the state board of pharmacy, recommended the enactment of a fully applicable state law and urged that there be a better liaison between the Food & Drug Administration and state agencies with similar functional objectives. The federal agency was severely criticized.

Probing into the case has disclosed that New Jersey State Police raided the plant of the producer of the counterfeit drugs involved in June of last year, confiscated an autoload of the product and closed the plant. In consequence, the president of the concern and two associates were doubly indicted on charges of conspiracy and forgery, and three others were indicted for conspiracy. So far as information is available, none of these charges have yet come to trial.

The Attorney General probably will defer his digging into the matter until he has had an opportunity to learn whatever may come out in the trials. He sure has a big digging job. It is not known whether he goes along with those who are expressing the view that counterfeiting that is deterimental to the public health should be in the same crime category as counterfeiting that is detrimental to the public wealth.

Aid to Latin Progress

On the basis of almost two years of work by a group of its business-leader members, the research and policy committee of the Committee for Economic Development (CED) has called for vigorous action to promote, by way of cooperation with the twenty Latin-American republics, economic and social progress among the peoples of that part of the Western Hemisphere in the developing of policies and the implementing of programs on the basis of the Act of Bogota.

Emphasizing that the "greatest economic resource of any country is its people," the committee declared in the first recommendation in its report that the people of the United States should "promptly and fully follow up" our promise to provide the initial contribution of $500,000,000 for a special Latin-American fund for social purposes," setting forth quite pertinently: "Social progress is not only the desired goal of economic development; it is also an important means for promoting economic development. Satisfactory economic growth requires that the people be educated, mobile and motivated to seek improvement of their lives within the system rather than by its overthrow."

In the committee's report, entitled "Cooperation for Progress in Latin-America," the second recommendation is directed to improvement of conditions of rural living and land use. It covers various areas of agricultural education and other training, research facilities and especially a much broader participation in ownership of the land and its products, putting emphasis on the possibilities of settlement and cultivation of the extensive areas of largely public land now idle.

In its third recommendation, directed to education, the report points out the need for help by this country's government and its educational institutions and foundations in the promotion of the "strong" educational efforts of many LA countries, especially in the improvement and expansion of facilities for higher education. Business leaders in all countries are particularly urged to consider "the great contributions that can be made by systematic training on the job or associated with work."

The fourth and fifth recommendations have to do respectively with providing Latin America with new, better and bigger export markets, and the encouraging of movements toward economic integration "to achieve the benefits of larger markets and increased competition."

An increase in the outflow of public funds to Latin America from this country and its Western allies is the report's sixth recommendation, with the suggestion that they be applied to "the development of private enterprise—including small business — through the creation or strengthening of development banks, farm credit institutions and private financial institutions."

Noting the helpfulness of US businesses to LA host countries, the CED committee recommends that the US and LA governments "seek in all feasible ways to enlarge the mutual beneficial activities" several incentives being suggested. In that connection, it was advocated a short time ago by a US business leader who had returned from a swing around South America that investments by US business in Latin America be federally guaranteed against losses by political activity, to promote such investments as a "counter-measure to communistic infiltration."

As has been suggested here on several occasions, the CED report advises that qualified nationals be trained for higher managerial, professional and technical positions in the operations of subsidiaries of US businesses in Latin-American countries. US businessmen are given much good advice on how to get along with Latin Americans, and it is advised that the following general and persistent attitudes should underlie the cooperative efforts to which the report is directed:

(1) "The need for a program will continue indefinitely; (2) the major effort must be made by the Latin Americans; (3) institutions and policies must be appraised by their effectiveness in satisfying aspirations in a manner consistent with democratic processes rather than conformity to our practice; (4) we proceed in the awareness that a certain amount of resentment and hostility toward us is inherent in our relationship with Latin America."

Any US business leader who has any inclination to think about doing business in any manner in Latin America—or any other foreign-language place in the world should get a copy of the sixty-four-page statement of the CED committee on cooperation for progress in Latin America and learn the very useful lessons that it provides.

OPD Bookshelf

Synthetics vs. Essential Oils

Will less expensive synthetic ever replace the essential oils? Nowhere, perhaps, is this question more frequently asked than in the perfume and flavor business.

And here, in a book called PERFUME AND FLAVOR MATERIALS OF NATURAL ORIGIN*, comes an answer from an expert, Steffen Arctander. No, says Mr. Arctander, synthetics will never replace the essential oils that nature makes.

In fact, he believes the advent of the scores of aromatic chemicals has actually enhanced the growth of the essential oil industry as a whole. He points out that a considerable proportion of the so-called synthetic materials are derived basically from natural raw materials such as turpentine, citronella oils, clove leaf oil, eucalpytus oils, camphor oils, the various citrus oils, etc.

The major portion of his tastefully illustrated 736-page volume is devoted to an alphabetical listing of monographs on the raw materials. Other sections are:

- Definitions and methods of processing.
- Tonnage of world production of important natural perfume and flavor materials.
- Value of world production of the most important natural perfume and flavor materials.
- Location of the most important centers of production with respect to tonnage.
- Location of the most important centers of production with respect to value for the local community.
- Grouping of the natural materials according to odor type and suggested use.
- General index and a French-German-Spanish condensed index.

The information was compiled by the author during some twenty years of study and work in the field, plus his travels which took him to four

—Continued on page 67

* PERFUME AND FLAVOR MATERIALS OF NATURAL ORIGIN. By Steffen Arctander. 736 pages. Steffen Arctander, P.O. Box 114, Elizabeth, N. J. $12.

Washington Talks It Over

Food & Drug Administration Takes a Look at Some of the Technological Changes in Industry And Decides That It Needs More Money to Keep Up With Them.

By Ralph L. Cherry
Washington Editor

Food & Drug Administration is making a strong pitch for a big increase ($4,732,000) in funds this year—telling congressmen that unless the money is forthcoming the agency runs the risk of again falling behind in its efforts to keep up with technological changes in the industries it regulates.

The "requirements of the sixties" is the tag that is being attached by officials to their money needs. Some eight separate goals are being offered as selling points for authority to hire this year about 300 more inspectors, scientists, administrative officers and clerical assistants.

FDA Commissioner George P. Larrick figures that to meet regulatory requirements geared strictly to the priority area of consumer health and safety and with no appreciable contributions to protection against economic violations, this is what the agency needs in the way of additional help, beginning next July 1:

Ninety-five more positions to handle the pesticide problem; forty-two more people to do food additive work; eighty-four new positions in drug enforcement; nineteen new posts in other research; twenty-five new jobs in field supervision; two more positions in federal-state relations, and thirty-two new positions in administration, information, compliance and programming.

If given this additional help, these are the ends the agency will be striving for:

- Step up factory inspections to at least one visit to each establishment at least once a year, instead of once every five years.
- Improvement in its scientific competence and stature.
- Greater efforts to protect consumers against nutritional, medical and other types of quackery.
- More seizure actions against economic cheats.
- Increased attention to the regulation of drugs and drug products.
- Improved educational and information programs for industry and consumers.
- Better administration and program planning.
- Better federal-state cooperation and assistance.

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Thinking about the rise and fall of some fine old chemical companies, we figure that the slide usually starts with a goof-off in the corner offices.

Which is the big reason why we keep a gimlet eye on the color and purity and flaking and weighing of BFC Chromic Acid. It's awfully easy to set up a "standard operating procedure" and live in a dream world while the cash customers get something less than the best.

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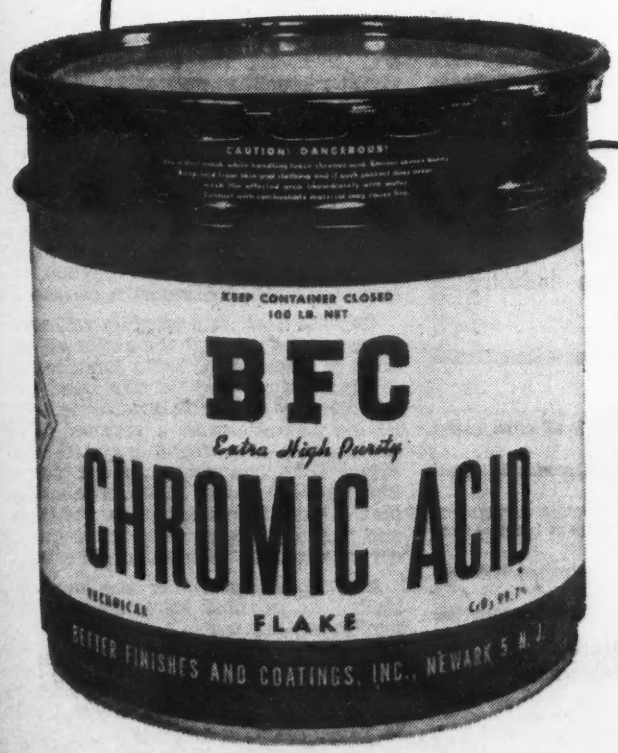
Thanks a lot!



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Heavy Chemicals

Sulfur Dioxide Expansion Race: Is It Due to a Burnt-Out Plant?

Sulfur dioxide expansion announcements have been piling atop one anoanother since last fall. Already 15,000 to 20,000 tons have been added to capacity and now a 10,000-ton plant is slated for the New Jersey area. The big question is this: Where will this material go in such quantity? What bothers most observers is that while capacity can be expected to surpass the 100,000-ton-a-year mark next year, sales, the backbone of consumption, just haven't gone anywhere during the past few years. In fact, government reports of sales have thrown in some gaseous SO_3 along with liquid, giving an erroneously inflationary picture of sales. For instance, in 1957 the government reported 78,000 tons shipped. Actual shipments: closer to 63,000 tons.

When two producers built additional capacity last fall, they claimed that SO_2 was in tight supply, and that producers were clamoring for material.

They were right. The reason was that one of the largest SO_2 producing plants in the country burnt to the ground in September. This meant that the producer, who was a large merchant supplier as well as a heavy-volume captive user, not only was removed from a selling position, but became an active buyer of large quantities as well.

But the burnt-out producer is rapidly building a new unit and hopes to be back on the market soon as a seller. Meanwhile, it looks like a future capacity of more than 100,000 tons and a demand for merchant use of only about 65,000 tons.

Chlorine dioxide manufacture via one process which uses SO_2 is coming under increasingly heavy competition from two other processes which do not. Hence, demand from the paper and pulp industry might remain static.

In fact the equipment used in the SO_2-based process can be easily shifted to another process which uses sodium chlorate, sulfuric acid and salt—bypassing SO_2 without much trouble.

The most recent producer of SO_2, who expects to be on stream early next year, reportedly will supply the needs of a sodium hydrosulfite manufacturer.

However, the former is also a producer of chromium chemicals. A recent development in chrome plating has been use of liquid sulfur dioxide by an auto producer to recover chromic acid from plating wastes. This may figure in the new SO_2 manufacturer's future plans.

Further, there are good prospects for increased use in the organic field. Toluene oxidized with SO_2 over a suitable catalyst yields benzaldehyde and toluic acid. Dialkylated benzenes can be oxidized by SO_2 to yield phthalic anhydride as well.

However, SO_2 has been around a long time—and most of its applications have been known for as long. Hence, it's difficult for trade observers to figure the sudden expansion. Next year may bring the answer.

Price Trends

Advanced
Tin metal (Straits), 4c. per lb.
Salts, ¾ to 1c. per lb.

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	... week	Last month	April 15, 1960
106.86	106.86	106.81	106.88

For Current Prices see page 9

Paper Production Lower

The American Paper & Pulp Association reported paper production for the week ended April 8, at 87.7 percent of theoretical capacity, as compared with the revised figure of 90.4 percent for the previous week and 96.6 percent for the corresponding week of last year.

Acids

Boric—An expected upturn in housing starts, signs of which are already apparent, has boric acid producers looking with confidence toward the second half of the year. Automobile industry proespects have also brightened with the news that a 15 percent increase in assemblies has been scheduled for the second quarter.

Bulk prices of boric remain steady and unchanged at the levels set in June 1959. Ex-warehouse prices were revised upward on the first of the year to reflect increased handling costs. There's a chance of firmer bulk prices later in the year, economic weather permitting.

Hydrochloric—On a 100 percent hydrochloric acid basis, the Bureau of Census reported February output of this acid at 67,044 short tons, as compared with 72,277 tons in January. Stocks at the end of February were reported to stand at 14,569 tons, down slightly over 1,000 tons from the stock position at the end of January.

Nitric—The Bureau of Census reports February production of this acid, on a 100 percent HNO_3 basis, as 272,534 short tons, compared with the revised figure for January of 285,788 short tons. Stocks at the end of February amounted to 16,344 tons.

Phosphoric—Figures reported by the Bureau of Census indicate that phosphoric acid output, expressed on a P_2O_5 basis, for February was 179,939 short tons, as against the January production of 192,624 short tons.

Sulfuric—February production of this acid on a 100 percent H_2SO_4 basis, amounted to 1,388,695 short tons, according to the Bureau of Census. The revised production figure for January stood at 1,493,985 tons.

Production of byproduct sulfuric acid at copper and zinc plants in the United States in 1960 totaled 1,184,000 short tons (100 percent basis) compared with 1,086,000 tons in 1959, an increase of 9 percent, according to the Bureau of Mines. The acid reported is that produced only from the sulfur content of the sulfide ores.

Output of acid at copper plants rose 46 percent as a result of resumption of full working schedules at plants closed by strikes in mid-1959. Production at zinc plants dropped 4 percent owing to strikes during 1960.

Bases and Salts

Caustic Soda—On a 100 percent basis, as reported by the Bureau of Census, sodium hydroxide output in February stood at 352,781 tons in February as against the 386,934 tons turned out in January.

Chlorine—The Bureau of Census reported production of chlorine in February amounted to 333,446 tons, as against the 368,802 tons produced in January. Demand is reported as well sustained at good volume, and price patterns firmly held at previous levels.

Hydrazine Hydrate—Rumors circulated in certain quarters to the effect that the fissio-chemical process for making hydrazine is pressuring current prices downward are without foundation in fact. As far as the fissio-chemical process, by which hydrazine is to be produced by the irradiation of ammonia, is quite far off commercially, too far to exert any effect on current prices. Moreover, current prices in which carlots of 240 pound drums of 85 percent material is priced at $1.28 per pound, has long been in effect, is still in effect, and is not expected to be changed in the immediate future.

Soda Ash—Output of crude synthetic in February was reported by the Bureau of Census as 335,978 tons and February production of natural was 68,213 tons. These figures were slightly lower than the 339,882 tons of synthetic and 69,037 tons of natural turned out in January.

Nonferrous Metals

Aluminum—Net shipments of aluminum sheet and plate totaled 106,273,000 pounds in February, down from January's 115,181,000 pounds but ahead of last February's 109,135,000 pounds, the Aluminum

Heavy Chemicals

Association reports. Included in the total were 89,228,000 pounds of non-heat-treatable material and 17,045,000 pounds of heat-treatable.

Foil shipments in February amounted to 18,835,224 pounds, down from 19,206,326 in January and 19,099,732 in February a year ago, the Association notes.

Exports of crude aluminum totaled 570 million pounds in 1960, or more than double the 1959 total of 242.2 million pounds, Business & Defense Services Administration reports.

According to the Bureau of Census net shipments of aluminum mill products in February amounted to 232 million pounds, 4 percent below January shipments of 241 million pounds.

Net shipments of aluminum ingot, both primary and secondary, during February amounted to 117 million pounds, 16 percent above January shipments of 100 million pounds. Net shipments of ingot include shipments by importers and represent shipments to consuming industries.

Copper—Prices remained firm and unchanged from the 29c. level it has recently maintained. Trading has been very heavy at this price level recently, with demand high for both domestic and foreign shipments. Part of the trading spurt may be due to the feeling that has gotten around to the effect that prices are likely to advance, not only because of heavy domestic demand but also because of heavy Japanese buying. At present, however, producers expect to sit tight at the 29c. level.

Mercury—Against a fair rate of business, prices were maintained at the rather depressed range of $206 to $209 a flask.

Tin—The runaway price spiral continued as prices gained 4½c. to close at $1.09c., the highest level since 1956. Consumers here held to the sidelines, confident that the speculative splurge would lead to a reaction.

Heavy Chemical Briefs

BORAX TRANS-SHIPMENTS: Bureau of Foreign Commerce has restored US export privileges on a probational basis to F. H. Bertling, freight-forwarding firm in West Germany. The firm lost its privileges July 1959 for illegal trans-shipment and attempted diversion of US-origin borax to East Germany.

MISSILE CONTRACT: Thiokol Chemical Corporation's Longhorn Division has been awarded a continuation contract in the amount of $4,936,812 for the final assembly and loading of various missile motors at the Longhorn Ordnance Works, Marshall, Tex.

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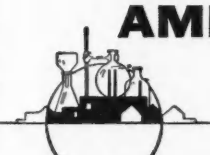

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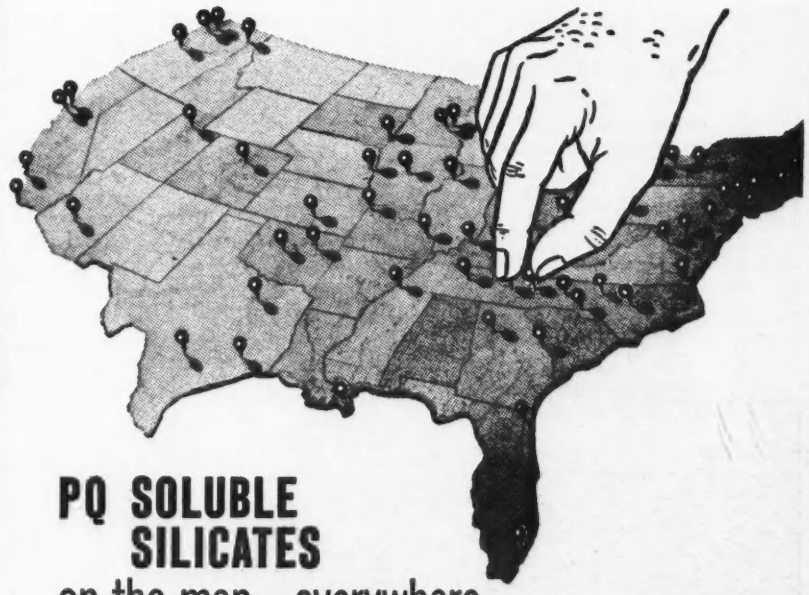

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Rayon Staple Fiber Imports Are Seen Harmless to US

Tariff Commission finds that rayon staple fibers are not being imported into the United States in such increased quantities as to cause or threaten serious injury to the domestic industry.

The finding was based upon an investigation of imports under the "escape clause" of the trade agreements law. Rayon staple fiber carries a reduced duty of 15 percent advalorem as a result of the General Agreement on Tariffs and Trade.

Still in progress is a tariff commission investigation to determine whether rayon staple fiber is being "dumped" into the US from France and Belgium in such quantities and at such prices as to injure US producers. Hearings in this investigation will be conducted May 2 and 3.

TGA Likes the Tune

—Continued from page 4

done, particularly in department stores and specialty shops.

Dentifrice sales continued to increase at about the normal 3 percent rate, tne increase for 1960 being roughly 3.3 percent. However, sales in food stores increased 5 percent and sales in drug outlets declined slightly.

The increase in shaving creams was greater than 8½ percent but again sales of shaving creams in food stores gained nearly 13 percent and sales in drug stores increased only by about 5 percent.

The field of hair preparations continued to be a bright spot in the cosmetic picture. This was especially true in the case of hair coloring materials. It appeared also that the decline in home permanent waving preparations had been checked, probably because of changing hair styles.

Fragrance products, especially colognes and toilet waters showed a rather substantial increase. The gain in colognes and toilet waters was undoubtedly traceable in part to the increased popularity of aerosol packages.

Make-up products were featured by the sharp increase in the use of eye make-up preparations.

With respect to the retail outlets, sales through food stores and by house-to-house sales people continued to gain at the expense of sales through drug stores and more particularly through department stores and specialty shops.

The latter showed quite a sharp decline although part of it was undoubtedly traceable to the weather conditions referred to above. Sales in the limited-price variety stores were up quite sharply as compared with those in drug and department stores.

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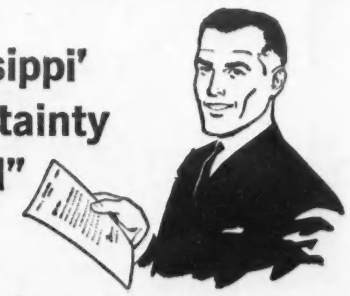

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Enzyme Nitrogen Fixation: A duPont Progress Report

E. I. duPont de Nemours & Co. continues to progress in the biological fixation of nitrogen. Scientists from the Wilmington, Del., company have just separated two essential components of the natural process of fixing elementary nitrogen from the atmosphere within a living cell.

Previously, duPont researchers reported that they had found the key to one of nature's best kept secrets—enzymatic fixation of atmospheric nitrogen (OPD, 3/7/60).

The two components necessary for fixation of nitrogen were identified by scientists as parts of the bacterium *clostridium pasteurianum*, before last week's meeting of the Federation of American Society for Experimental Biology in Atlantic City, N. J.

Dr. Leonard E. Mortenson treated the enzyme solutions outside the bacterial cell in order to obtain what is now known as a hydrogen-donating system and a nitrogen-activating system. The work of Dr. Howard F. Mower provided clues to the action of the two components.

The hydrogen-donating system was obtained by heating the solution briefly at moderate temperatures; the nitrogen-activating system by treatment with silica gel. Fixation was achieved by combining the two components, adding their special fuels, sodium pyruvate, and exposing to nitrogen.

Fluoride Installation

—*Continued from page 3*

thus broadening its product line of fluorine and boron chemicals, Stauffer reports.

No changes are contemplated in sales and distribution policies, nor in plant personnnel, thus assuring a continuation of current product quality, says Stauffer headquarters in New York.

Distribution of the new fluoride products will be handled through the industrial chemical division's sales offices in New York, Philadelphia, Chicago, and Atlanta, Ga.

Fluoride products produced at the East St. Louis plant include sodium fluoride, sodium bifluoride, fluoboric acid and sodium fluoborate.

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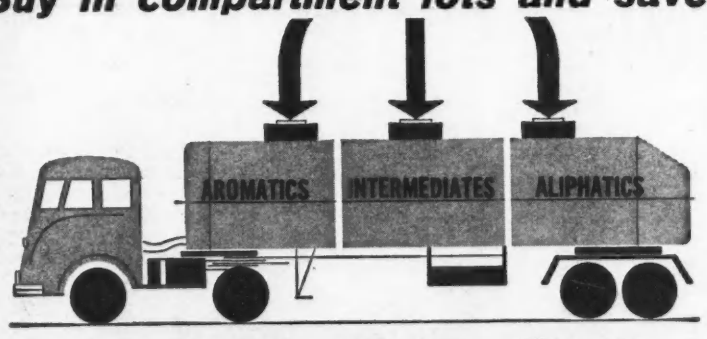

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Petroleum Derivatives

The US is reversing its foreign trade role in benzene and becoming a net exporter as supply grows more abundant in the domestic market. Total exports for the first two months of 1961 were 5.9 million gallons as against imports of 1.3 million gallons for a net export balance of 4.6 million gallons. Last year in the same period the US was a net importer by 2.7 million gallons. Although the margin of exports over imports built up in the first two months this year may not endure, most observers are agreed that at the year's end the scales will be more evenly balanced than last year when the US was a net importer by over 15 million gallons.

Reason for the surge in exports is the world-wide boom in benzene demand plus the ever-growing capacity of US production facilities. Some trade sources indicate that excess US material will flow overseas as domestic markets become adequately satisfied within the current year.

January crude runs set an alltime record of 8,366,000 average b.p.d. Previous high was 8,274,000 average b.p.d. set in January, 1957.

Demand decreased for refined products in January, however. Total demand dropped 3.1 percent from December to an average of 11,186,000 b.p.d. Domestic demand was down 2.9 percent to an average of 11,020,000 b.p.d.

Prices continued to climb in January. Wholesale price index (1947-49 equals 100) for crude petroleum and petroleum products was 122.4 for January, compared with 120.8 for December and 114.4 for January, 1960 according to Bureau of Labor Statistics.

May crude oil production of Texas' prorated wells will be reduced by approximately 4 percent if producers have their wishes granted according to the chairman of the Texas Railroad Commission.

Excessive stocks of finished petroleum products is cited as the producers' reason for requesting a cut. Decision will be handed down April 19 by the Commission.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	April 15, 1960
104.10	104.11	103.74	103.82

For Current Prices See Page 9

Aromatic Solvents

Benzene—Trade sources report an easing of supply.

Material is still short in some areas but overall the supply position is much improved.

One major producer reports that he is now easily able to fulfill contract commitments.

In fact, customers are able for the first time in ages to build inventory.

Only recently one producer comments that a large-volume consumer purchased 1 million gallons of benzene in order to build inventory to a level once considered adequate in the days before the benzene drought.

The easing of supply may create marketing problems for new suppliers, one major producer indicates, in that most contract customers are now in the position, or soon will be, of being fully supplied by their current sources.

One possible volume outlet for new supply will be in the export market according to some observers.

One producer in fact relates that he has been selling his excess material to other producers so that they might fulfill their export commitments.

The export area of the market remains strong. Prices are higher than in the domestic market. Volume in the first two months of this year ran double that of the same period last year.

Benzene exports in February totaled 4,131,768 gallons valued at $1,656,256 by the Tariff Commission. January shipments totaled 1.8 million gallons.

Destination, volume, value and port of exit designation follows:

Netherlands—1,599,507 gallons valued at $568,978 left from Port Arthur and Galveston districts.

W. Germany—892,288 gallons valued at $449,014 left from Port Arthur district.

Mexico — 749,821 gallons valued at $330,403 left from Laredo.

Italy—490,863 gallons valued at $139,530 left from Port Arthur.

Canada — 396,359 gallons valued at $139,530 left from Detroit, Buffalo and St. Lawrence districts.

No imports are noted by the Tariff Commission for February.

Toluene—Some strengthening is reported in toluene sales.

Benzene conversion units are taking a good share of output.

Movement into gasoline is expected to perk up with the arrival of good weather and improved driving conditions.

Export market showed to advantage in February after a slack January.

Imports in February totaled 89,540 gallons valued at $18,418, considerably below the approximately 600,000 gallons imported in January.

All of February imports originated in Canada and entered the US at Detroit.

Toluene exports in February jumped to 7,391,916 gallons valued at $1,361,147 after registering approximately half a million gallons in the preceding month.

Xylene—One major producer reports no evidence of a pickup in solvent sales despite the rejuvenation of the auto market.

Solvent business is expected to start up again in earnest just as soon as customary Spring auto sales push becomes reflected in auto production rates.

Appliance metal finishing is still depressed.

Xylene's bright spot continues to be in isomers with ortho leading the way.

Naphthalene supply has been improving, however, so that the duration of the high state of demand for ortho for phthalic production is a question mark.

Imports of xylene in February amounted to 205,968 gallons valued at $29,010, almost double the imports recorded in January.

All material originated in Canada and entered the US at Detroit.

Crude Oil Stocks Climb

Domestic and foreign crude petroleum stocks at the close of the week ended April 1 were 4,593,000 bbls. higher than at the end of the preceding week.

Week ended April —243,193,000 bbls.

Preceding week—238,600,000 bbls.

This increase comprises an increase of 5,322,000 bbls in stocks of domestic crude and a decrease of 729,000 bbls of foreign crude.

(Source: Bureau of Mines)

Waxes

Paraffin—Producers of bulk white crude scale material report business continues at a good pace.

Prices remain in the range of 5½c. to 6½c. a pound, a level held for some time now.

Production and domestic demand for petroleum-derived waxes increased in January as compared with December. Exports and stocks declined.

In its latest report Bureau of Mines indicates January production at 475,000 bbls., up 4,000 bbls. from December and 19,000 bbls. higher than January a year ago.

Demand climbed to 400,000 bbls. in January after registering 334,000 bbls. in December. In January a year ago demand was noted at 343,000 bbls.

Exports declined to 99,000 bbls. in January, off 25,000 bbls. from December but the same amount as was exported in January, 1960.

Stocks dropped to 881,000 bbls. in January. December's inventory was placed at 905,000 bbls. while January, 1960 stocks were placed at 789,000 bbls.

Miscellaneous

Mineral Oils—Producers report a strong, steady market for mineral oils.

Good demand is indicated from the drug and cosmetic fields where now products requiring minerals oils as bases continue to be developed.

Aliphatic Organics

Imports of many large-volume organic chemicals last year far exceeded 1959 volume, according to statistics just released by the Commerce department. Up most spectacularly were inshipments of ethyl alcohol, which rose from 540,000 gallons in '59 to approximately 20.2 million in '60, excluding the estimated 5 million gallons held in bonded warehouses at year's end. Ports of entry for the foreign alcohol were Galveston, Tex. (18,673,674 gallons) and Philadelphia. On the suppliers' roster: Brazil, 10.2 million gallons; Peru, 4.6 million; Cuba, 3.3 million; Finland, 2.1 million.

Big percentage increases were also shown for acetic acid, crude glycerine, lactic acid (55 percent and over), tetrachloroethane, and trichloroethylene. Perchlor imports also increased, it's believed, but as the chemical was included in a basket category until last year, a comparison with '59 is impossible.

Bucking the general up-trend in chlorinated solvent imports, carbon tetrachloride volume declined about 20 percent. So, too, furfural imports from the Dominican Republic, the decline necessarily indicating waning interest either in the chemical or Trujillo-land by a major US nylon producer.

In the solitary price action last week, refined white sucrose was reduced 15 cents, to $9.40 a hundredweight in 100-pound bags, f.o.b. eastern refinery. The reduction was understood to be a competitive move, designed to stabilize a schedule weakened of late by refiners' intense efforts to book business.

Trade people are wondering just what a major producer of methanol expects of the chemical growthwise in the near future. The firm is expanding its capacity at one location and currently planning to erect a new facility at another —this one at Huron, Ohio—and from these moves stems the speculation.

Methanol production was up approximately 10 percent last year over the 1959 level, according to Tariff Commission statistics, and obviously some people are convinced the uptrend will continue.

Acetone—Output of acetone in 1960, according to a preliminary report just issued by the Tariff Commission, was 768,128,554 pounds, exceeding an early industry estimate of 724.5 million, and actual '59 production of 736.2 million.

The gain in production in both of the past two years could indicate that acetone will become a billion-pound-a-year chemical before 1966, the target date forecast by OPD—after checking out the trade—in an early "depth" report (8/24/59).

To a limited extent, the rise in industry capacity and production has resulted in price weakness, a situation which still persists despite an upturn in demand during recent weeks. It was generally expected, of course, but nonetheless regretted because costs were already high and profits slim.

Ethyl Alcohol—There is an apparent discrepancy in statistics on February imports of ethyl alcohol and OPD is seeking clarification.

As reported by the Commerce department, imports were 4,234,302 gallons, valued at $886,871 and dutied at $120,963. Of the total, 1,070,000 gallons entered the US at Philadelphia; this material was valued at $246,100 and dutied at $80,250. These figures seem to check out.

The 3,164,302 gallons of alcohol that arrived at Galveston, Tex., were valued at $640,771 and dutied at $40,713—and some one or all of these figures are in error. Given the volume, the duty, calculated at 7½c. a gallon—Brazil, country of origin, is a member of GATT—would be about $237,322.

Ethyl alcohol imports in 1960, totaling 20,200,881 gallons, were valued at $4,362,208 and dutied at $1,515,062.

Glycerine — February production of crude and synthetic glycerine was 22.2 million pounds, exceeding disappearance that month by 2 million pounds. Compared with January, output was down 500,000 pounds, disappearance 1 million pounds.

More noteworthy, however, are inventory statistics, which show that producers held stocks totaling 60.6 million on March 1, approximately 22 million pounds more than they held the same date a year ago.

Producers' inventories have risen each month since September 1960. The rise can be explained, reportedly, by recession-slackened sales and the greater amounts of glycerine required for continued operations at additional storage facilities now being maintained by at least two producers. (See OPD, 3/27/61.)

Imports of crude glycerine in February, as reported by the Commerce department, were 982,097 pounds, valued at $136,952 and dutied at $3,927. Sources were: Philippine Republic 673,783 pounds, valued at $96,598 and dutied at $2,695; Argentina 220,459 pounds, valued at $28,900 and dutied at $881; and Trinidad, 87,855 pounds, valued at $11,448 and dutied at $351.

Recent reports have indicated a minimum of orders and correspondingly little buying of crude from world markets. This is in marked contrast to the situation in late 1960 when imports climbed steadily, hitting 18 million pounds by year's end. Inshipments a year earlier were 12.7 million pounds.

It was fear of potential price depression due to continued large imports of crude, reported to be in excess supply in the world market, that decided producers of refined and synthetic glycerine here to cut prices last December, according to several trade sources.

Eventually, of course, glycerine manufacturers can expect increasing competition right here at home. A new producer, using a molasses fermentation process, expects to have a plant on stream by the second quarter of '62.

Debut of another new producer is also anticipated, but even an approximate date is not known. A spokesman for this firm notes only that ground for a glycerine facility has been broken.

Methanol—Production of methanol in 1960, at 1.9 billion pounds, was about 10 percent greater than output the preceding year (1.7 billion pounds). And based on recently - installed, currently - being - installed and planned capacity increases, a

Price Trends

Advanced
None

Reduced
Sucrose, eastern refinery, 15c. per cwt.

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	April 15, 1960
130.48	130.53	130.54	132.54

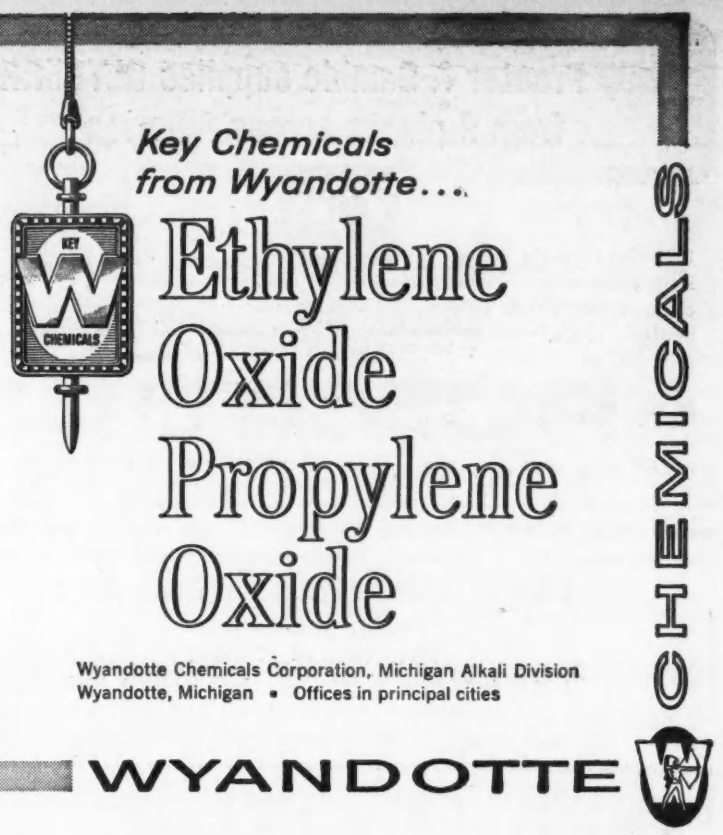
For Current Prices see page 9

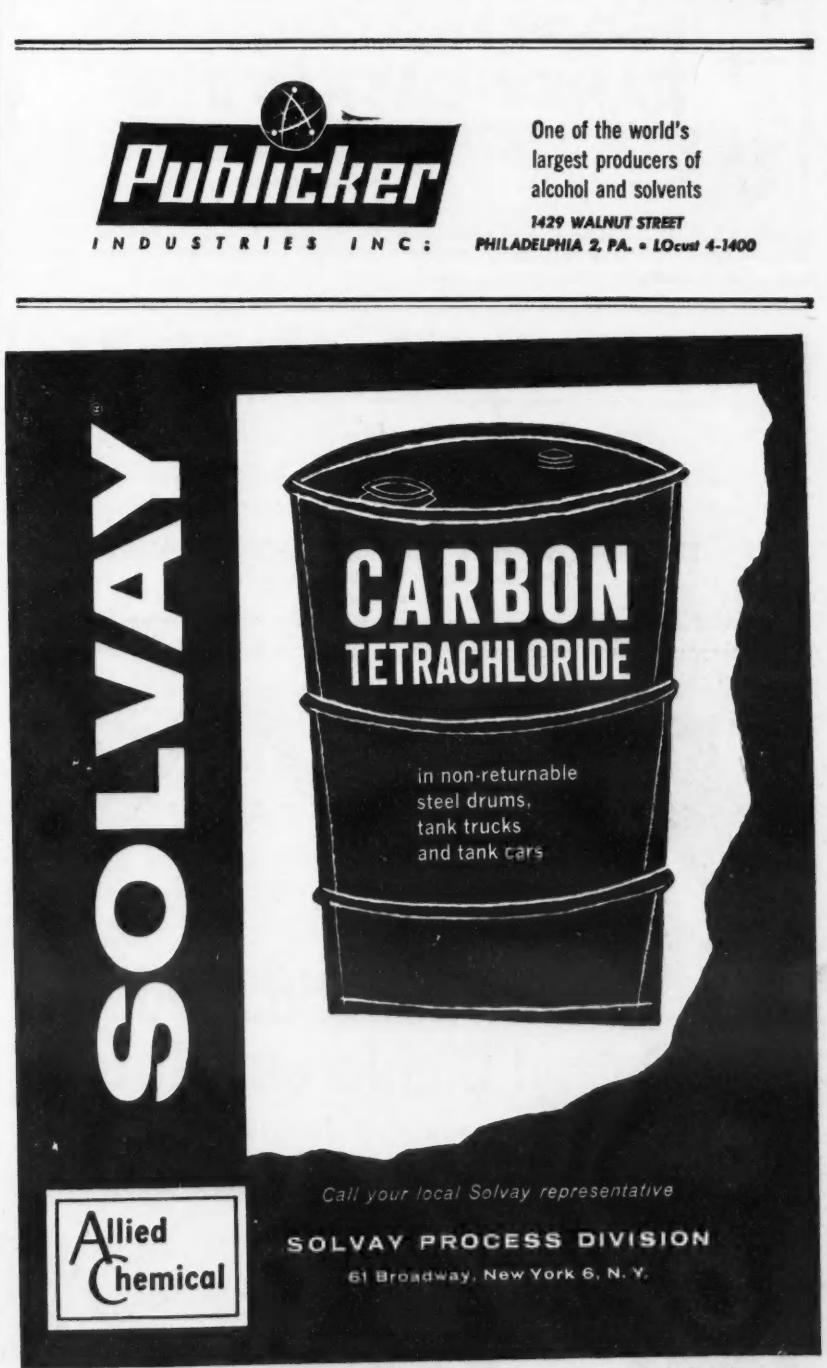
Aliphatics Foreign Trade: 1960

Imports of selected industrial aliphatic organics for 1960 and 1959, as reported by the Bureau of Census, were as follows:

		1960	1959
Acetic acid (over 65 percent)	lbs.	4,728,240	1,798,825
Acetic anhydride	lbs.	1,010,340	1,862 090
Amyl, hexyl, propyl alcohol and fusel oil	lbs.	604,222	1,298,751
Carbon tetrachloride	lbs.	4,052,124	4,749,839
Chloroacetic acid and anhydride	lbs.	11,104,864	9,208,637
Ethyl alcohol	gals.	20 200,881	540,000
Formic acid and anhydride	lbs.	2,239,591	2,162,901
Furfural	lbs.	31,955,228	40,093,955
Glycerine, crude	lbs.	18,341,615	12,750,024
Lactic acid (55 percent or more by weight)	lbs.	316,367	178,153
Perchloroethylene	lbs.	22 106,531	*
Tetrachloroethane	lbs.	30,431,525	11,445,946
Trichloroethylene	lbs.	59,088,069	51,787,689
Vinyl acetate, unpolymerized	lbs.	42,577,447	39,322,837

* Not separately classified in 1959.

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continuation of the upturn is a logical assumption.

In mid-January, facilities to turn out methanol (and formaldehyde) were completed on the west coast, adding some 8 million gallons of capacity, and about the same time, another producer disclosed an expansion program that would, when completed late this year, hike its overall methanol capacity approximately 35 percent.

The latter firm also plans to build a plant near Huron, Ohio, provided the Federal Power Commission approves a pipeline extension to supply the plant with natural gas. Capacity would be in the vicinity of 30 million gallons, reportedly.

Loss of some foreign business has been called likely for some time and a recent report tells why. Output of methanol in France during the first half of 1960 was 35,700 metric tons, versus 20,710 metric tons in the corresponding period in '59.

Molasses—Molasses used in the production of alcohol and distilled spirits in January amounted to approximately 1 million gallons. This compared with 800,000 gallons in December and 2.4 million gallons in January 1960.

Molasses used for this purpose in the seven months beginning July 1, 1960 totaled 19.7 million gallons, substantially higher than the 11.7 million gallons used during the comparable period a year earlier.

Markets for feeding cane molasses strengthened in the south and midwest states during the week ended April 4. Higher cost of molasses to distributors was the main reason given for the upturn, Agricultural Marketing Service reports.

Demand from users remained seasonally moderate to slow but prices advanced about ½c. a gallon at New Orleans, AMS said.

Puerto Rican producers have sold an additional 4 million gallons of 1961-crop blackstrap to local users and distributors. Prices paid were 11.5c. to 12.5c. a gallon (mostly at the top of the range), f.o.b. Puerto Rican ports, reportedly.

Perchloroethylene — Imports of perchloroethylene in February were 2,173,674 pounds, down from 2,667,628 in January. The value was $174,741 and the duty, as calculated by Customs, $10,485.

Sources were: France 800,749 pounds, valued at $59,418 and dutied at $3,566; Belgium 788,145 pounds, valued at $57,200 and dutied at $3,432; Canada 564,480 pounds, valued at $56,749 and dutied at $3,405; Japan 20,300 pounds, valued at $1,374 and dutied at $82.

For all of 1960, imports amounted to 22,106,531 pounds. Foreign shippers were: France, 8 million; Italy 2.5 million; Canada 2.2 million; Japan, 1.1 million; and United Kingdom, 352 pounds.

Trichloroethylene — February imports were 1,891,742 pounds, valued at $122,856 and dutied at $9,212. Shipping here were: France 970,068 pounds, valued at $66,300 and dutied at $4,972; West Germany 669,224 pounds, valued at $38,954 and dutied at $2,921; Italy 82,500 pounds, valued at $6,749 and dutied at $506.

Also, the Netherlands, 66,001 pounds, valued at $4,337 and dutied at $325; Sweden 65,000 pounds, valued at $4,020 and dutied at $301; and United Kingdom, 38,949 pounds, valued at $2,496 and dutied at $187.

For calendar year 1960, imports totaled 59,088,069 pounds, according to the Foreign Trade & Economics Operation Division of the Bureau of Census, US Department of Commerce.

On the suppliers' roster (millions of pounds): United Kingdom 21.1; Italy 11.7; France 9.2; West Germany 4.9; Sweden 3.5; Spain 2.6; Canada 1.8; Japan 1.2; Netherlands 1.1; East Germany 1.0. Also, Belgium, 622,614 pounds and Israel 26,452 pounds.

Sucrose—A major producer last week (April 11) posted refined white sucrose (industrial grades) at $9.40 a cwt., f.o.b. eastern refinery, 15c. lower than the official market over the past several months.

The cut was termed a competitive move and the expected outcome of dealers' maneuverings over the past few weeks to book business.

Apparently, selling efforts gave rise to special pricing situations and a stabilizing influence was needed to halt a further decline.

Demand for refined sugar is called fair, though buyers are undoubtedly frustrated by the peculiar doings in the world market. And for their part, refiners are holding up purchases, it's said, waiting for the government to reapportion the Cuban quota. Meanwhile, Cuban raw sugar prices are going higher.

The Sugar Act was extended through June 1962 by a new law only recently passed by Congress.

Vinyl Acetate—From 1.1 million pounds in January, imports of vinyl acetate monomer rose to 5,329,699 pounds in February. Valued at $826,430 and dutied at $118,265, all of this material came from Canada.

Polymer imports in February totaled 76,696 pounds, valued at $40,819 and dutied at $3,509. Shipping here were: Japan, 60,250 pounds; France, 10,100 pounds; West Germany, 3,866 pounds; Switzerland, 2,370 pounds; and Canada 200.

Mallinckrodt Chemical Fills Three New Executive Posts

Mallinckrodt Chemical Works, St. Louis, Mo., has appointed three company officers.

Harold A. Brinner, treasurer and controller, has been elevated to a vice-presidency and will continue to serve as treasurer. Succeeding him as controller is Frederic M. Mead, former assistant controller. And G. C. Bradshaw, general purchasing agent, gets the added duties of assistant secretary.

Toluene, Polyethylene

—Continued from page 3

decrease at the moment in the duty on this material, but this will not remain so for long.

The State Department says that lower cost of production may result in a somewhat higher ad valorem equivalent during future years.

The department points out that the new rate of 13 percent for soybeans is not expected to affect US exports substantially. Reason: The new rate is not to go into effect until imports of soybeans are liberalized by placing the item under an automatic licensing system.

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For technical information, prices, and samples, write Department SP-29.

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Current Market Quotations

—Continued from page 32

2,5-Xylidine, tech., dms., frt. alld. lb. 1.20 - —

Xylidines, mixed, o-m-p, dms., c.l., or t.l., works lb .39 - —

dms., t.c.l., same basis lb .40 - —

tanks, same basis lb. .38 - —

XYLOL

Xylol quotations, both coaltar and petroleum, may be found under Xylene

Y

Yara yara oil, cns. lb 2.15 3.05

Yeast, brewers, debittered, USP XV, Saccharomyces dlvd lb .27 —

primary, USP XV, 150 mcg. B_1 per gram, 100-lb. dms lb. .47 - —

USP XV, 270 mcg. B_1 per gram 100-lb dms lb. .52 —

Yeast, brewers, primary USP XV, 300 mcg. B_1 per gram, 100-lb dms lb. .56 - —

USP XV, 900 mcg. B_1 per gram 100-lb dms lb .60 - —

Torula USP dlvd lb .18 —

YELLOW PIGMENTS

Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow

Yerba santa leaves, bls. lb. .40 - .45

Ylang Ylang oil, Bourbon, bots. lb. 7.00 -22.00

extra, bots. lb.24.00 -33.00

Yohimbine hydrochloride, bots., tins. oz. 3.75 4.25

Z

Zein, 50-lb. bgs., c.l., t.l., f.o.b. works lb. .37 - —

50-lb. bgs., smaller lots, f.o.b. works lb. .41 - .44

Zinc acetate, NF, VIII, dms lb. .53 —

Tech., dms., t.t.l., works lb. .2950- —

Zinc borate bgs. 1,000 lbs or more, works lb. .25 - —

bgs. less than 1,000 lbs., same basis lb. .27 - —

Zinc chloride, NF gran. dms lb. .42 - —

NF precip., powd., dms lb. .26 - —

Tech. soln. 50%, dms., c.l., works 100 lbs. 5.80 - —

dms., t.c.l., works 100 lbs 6.40 - —

tanks, works 100 lbs 5.15 - —

fused dms c.l. works 100 lbs.10.70 - —

dms., t.c.l., works 100lbs.11.20 - —

Zinc Chloride, tech. gran., fib. dms., c.l., works 100 lbs.11.45 - —

fib dms. t.c.l. works 100 lbs.11.95 - —

Zinc chromate bbls., dlvd. lb. .29 - —

Basic bbls. dlvd lb. .34 - —

Zinc cyanide dms., 1,000-lb. lots or more, works lb. .55 - —

dms., smaller lots, works lb. .57 - —

Zinc dust comi. bbls., c.l. works, lb. .16 - —

Pigment, bbls., c.l., works lb. .15½- —

bbls., l.c.l., works lb. .17¼- —

Zinc fluoride, bbls., works lb. .49 .50

Zinc hydrosulfite, dms., c.l., frt. alld lb. .21½- —

dms. t.c.l. frt. alld. lb. .23½- —

Zinc metal, prime western, slabs, E. St. Louis lb. .11½- —

Prime western slabs, New York lb. .12 - —

Zinc naphthenate liq. 8% Zn., dms., frt. alld lb. .27 - —

10% Zn., dms., frt. alld lb. .33 - —

Zinc nitrate, tech., flake, 100-lb. fib. dms., l.c.l. lb. .16½- —

300-lb. fib. dms., l.c.l. lb. .14½- —

300-lb. fib. dms., c.l. lb. .14 - —

Zinc oxide pigment, American process, lead-free bgs., c.l., f.o.b. works lb. .12½- —

bgs., l.c.l., 10 tons or more, same basis lb. .13 - —

bgs., l.c.l., smaller lots, same basis lb. .13½- —

Zinc oxide, leaded, 35%, bgs., c.l., mills, f.o.b. works lb. .14 - —

bgs., l.c.l., 10 tons or more, same basis lb. .14½- —

pigment, American process, leaded, 50%, bgs., l.c.l., 10 tons or more, same basis. lb. .14½- —

Zinc oxide, pigment, French process, green seal, bgs., c.l., f.o.b. works lb. .14½- —

bgs. l.c.l. 10 tons or more, same basis lb. .15 - —

Zinc oxide, French process, green seal bgs., l.c.l., smaller lots, same basis lb. .14½- —

red seal, bgs. c.l. same basis, lb. .14½- —

Zinc oxide, French process, green seal bgs., l.c.l., 10 tons or more, same basis lb. .15 - —

bgs. l.c.l. smaller lots same basis lb. .15 - —

Zinc oxide, white seal, bgs., c.l., same basis lb. .14¾- —

bgs., l.c.l., 10 tons or more, same basis lb. .15½- —

bgs., l.c.l., smaller lots, same basis lb. .15¾- —

Zinc oxide, USP dms., c.l., frt. alld. lb. .16 - —

dms., l.c.l., 10 tons or more, same basis lb. .16½- —

dms., l.c.l., smaller lots, same basis lb. .17 - —

Zinc phenolsulfonate, NF, gran., dms lb. .45 - .48

NF, powd., dms. lb. .45 - .49

Zinc resinate, precip. 7.2-7.6% Zn., dms., frt. alld lb. .45 - —

Zinc silicofluoride, dms. works lb. .12½ .14

Zinc stearate, USP, ctns., c.l. lb. .41 - —

lb. .41 - —

ctns. t.c.l lb. .42 - .46

Zinc sulfate, powd., monohydrate, 36% Zn, bgs., c.l., dlvd.E. 100 lbs. 8.75 - —

bgs., t.c.l., dlvd. E 100 lbs. 9.75 - —

Zinc sulfate in bbls 40c. higher.

Zinc sulfide, pure, bgs., c.l., dlvd lb. .2530- —

Zinc undecylenate, 75-lb. fib. dms., f.o.b. works lb. 2.04 - —

Zinc, yellow (see Zinc chromate)

Zinc-ammonium chloride, bgs., c.l., works 100 lbs.10.25 - —

bbls., c.l., works 100 lbs.10.85 - —

bbls., t.c.l., works 100 lbs.11.35 - —

Zinc-formaldehyde sulfoxylate, basic, 300-lb dms., frt. alld lb .26 - —

Normal, 250-lb. dms., frt. alld lb. .55 - —

Zircon (G) gran. bgs. c.l. works. lb. .03½- —

Zircon (G) gran., bgs., 5 tons to c.l., works lb. .03⅜- —

bgs., 1 ton to 9,999-lb lots, works lb. .04 —

bgs., smaller lots, works lb. .06½- —

Zircon (G) milled, bgs. c.l. works. lb. .04½- —

bgs., 5 tons to c.l., works lb. .04⅜- —

bgs., 1 ton to 9,999-lb. lots, works lb. .04⅝- —

bgs., 500-1,999-lb. lots, works lb. .07½- —

Zircon (G) in barrels 1c. higher.

Zirconium acetate soln., 13% ZrO_2, dms. c.l. 30,000 lbs. min., works lb. .23 - —

Zirconium hydride powd. electronic grade, dms., works lb.14.00 -15.00

Zirconium oxide, CP, white, grd., bbls. or bgs. works lb. 1.50 —

Electric-fused lump, bgs. 500 to 1,999-lb lots, works lb. 48½- —

bgs., smaller lots, works lb. .51 - —

milled, bgs. c.l., works lb. .62 - —

bgs., 5-ton lots, works lb. .62½- —

bgs., 1-ton to 9,999-lb. lots, works lb. .63½- —

bgs., 500 to 1,999-lb. lots, works lb. .64 - —

bgs. smaller lots, works lb. .66 - —

Glass polishing grade, 94-97% ZrO_2, bgs., works lb. .58 .65

Opacifier grade 85-90% ZrO_2, bgs., lb. .27 - .30

Stabilized oxide 91% ZrO_2, milled, bgs lb. .62 .85

Zirconium oxychloride, cryst., ctns., 5-ton lots, works lb. .37½ —

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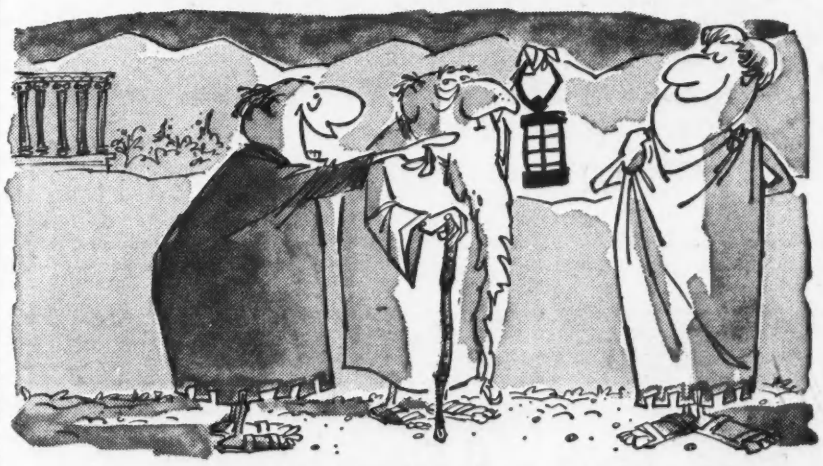

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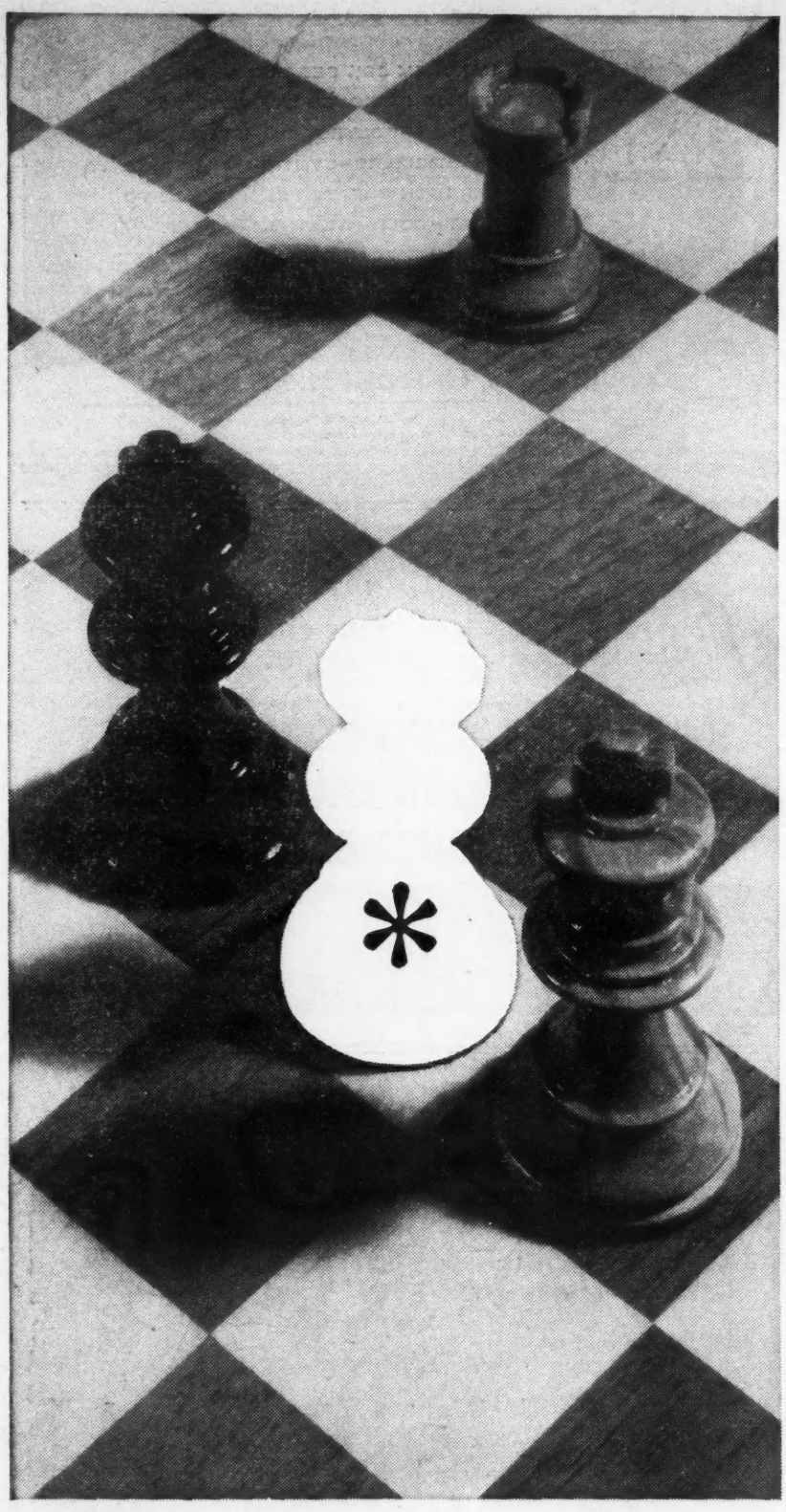

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KOPPERS COAL CHEMICALS

Coal Chemicals

Trade reports indicate improved supply conditions for chemicals long listed as in tight or short supply—benzene and naphthalene. While much of the improvement is marginal, there is increasing optimism in the trade regarding supply which for once appears to be backed up with fact. Steel rate inches higher, last week's gain being the fourth successive advance, and reports indicate additional coke oven batteries are being started up in anticipation of a Spring upturn in mill orders. In four to six weeks the newly-activated mills will be turning out co-products, too.

Benzene is reported as short in local areas but not overall.. Petroleum sources continue to supply most of the market but coke oven producers are beginning to supply additional material as steel rate advances.

Naphthalene supply is also gaining. Imported material has gained in volume of late and dropped in price. Petroleum naphthalene has apparently solved a raw material shortage and will be operating at higher rates of production shortly. Significant increase in cokeoven supply is four to six weeks away, sources say.

Phthalic anhydride is also reported easier.

One PA producer reveals that less and less orthoxylene is being employed in his production line now that naphthalene is showing an increase in supply.

Another xylene fraction — para — is an object of interest by the Japanese. According to trade sources a Japanese mission is currently seeking an undisclosed amount of para for shipment to Japan.

Still extremely tight is refined 2° pyridine. Spot prices for material approach double the contract price.

Production of steel in the week ended April 8 was 1,696,000 net tons, an increase of 3.9 percent from the preceding week.

Based on assumed 1961 steel capacity, rate of production for the week was 58.7 percent.

Production through April 8 was 41.6 percent less than in the comparable fourteen weeks last year.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	April 15, 1960
117.64	117.51	117.51	118.40

For Current Prices see page 9

Basic Products

Benzene—Coke oven supply of benzene is improving, producers report. Keeping pace with the fractional increases in the steel rate of late, benzene availability is showing marginal gains.

Overall supply is much improved on the basis of burgeoning petroleum production.

Most customers are able to get what they need for short-term requirements. Some fortunate few are also able to build inventory to acceptable working levels, according to trade sources.

Exports of benzene in February totaled 4,131,768 gallons valued at $1,656,256 by the Tariff Commission. January's exports totaled 1.8 million gallons.

Destination, volume, value and port of exit designation follow:

Netherlands—1,599,507 gallons valued at $568,978 left from Port Arthur and Galveston districts.

W. Germany—892,288 gallons valued at $499,014 left from Port Arthur district.

Mexico—749,821 gallons valued at $330,403 left from Laredo district.

Italy—490,863 gallons valued at $139,530 left from Port Arthur district.

Canada—396,359 gallons valued at $139,530 left from Detroit, Buffalo and St. Lawrence districts.

Creosote—Bureau of Census reveals that January exports of creosote were erroneously listed in their report at 200,275 gallons.

Approximately 190,000 gallons of that amount originally listed as bound for Japan proves in reality to consist of coaltar and cresylic acid.

Exact breakdown will be available from the Bureau possibly with the next monthly report.

Naphthalene—Supply conditions are improving, sources report.

Although still critically tight overall, there are indications from the domestic and export areas of the market that a decided increase in availability will be noted by May or June.

In the domestic area it is reported longshut coke oven batteries are returning to action as the steel rate continues its slow climb.

Results cannot be expected from these units for some four to six weeks so that cokeoven supply of material will be restricted for at least that long until the batteries reach full scale production.

Supply from the new petroleum naphthalene unit continues to flow though reportedly not at full capacity.

This curtailment is not expected to last beyond this week, however.

According to trade sources, the hydrogen shortage at the new unit will be relieved this week if it has not already been so.

Full-scale production is expected for this first time when this problem is solved.

Price of petroleum naphthalene has not been publicly revealed, but trade sources estimate it at a comparable level with cokeoven price if petroleum's greater yield and finer purity is taken into account.

In the import area, prices have declined from last year's levels.

Trade sources reveal that approximately 12c. a pound is the current going rate for immediate shipments.

Much of the imported material continues to originate in Iron Curtain countries.

Imports of naphthalene in Febrlary declined to 3,486,605 pounds valued at $364,476 after January arrivals of 5.2 million pounds.

Country of origin, volume, value and entry port follows:

UK—1,697,686 pounds valued at $112,600 arrived at New York, Philadelphia and Boston. Average price—6.6c. per pound.

USSR—1,044,317 pounds valued at $152,148 arrived in New York. Average price—14.6c. per pound. Soviet naphthalene exports to the US thus far this year—nearly 3.2 million pounds.

Belgium—352,912 pounds valued at $48,623 arrived at New York. Average price—13.7c. per pound.

Netherlands—220,462 pounds valued at

Aromatic Chemicals Foreign Trade: February

Following statistics are compiled from Census Bureau reports.

	February 1961	*February* 1960	*First Two Months* 1961	*First Two Months* 1960
EXPORTS				
Benzene ....gals.	4,131,768	1,350,994	5,923,935	2,761,814
Coaltar, crude and refined....gals.	14,789	31,561	32,236	60,714
Cresote or dead oil....gals.	2,640	1,370	12,915	1,590
Cresols and cresylic acids....lbs.	2,393,910	898,417	4,490,488	1,858,410
Phenol ....lbs.	1,409,292	3,146,738	3,166,987	4,930,963
Phthalic anhydride....lbs.	54,880	721,984	318,720	1,191,483
Styrene monomer....lbs.	24,744,835	9,047,322	30,473,692	20,300,237
Toluene ....gals.	7,391,916	3,797,868	7,849,903	10,053,450
IMPORTS				
Benzene ....gals.	0	5,472,600	1,297,421	5,472,600
Creosote and dead oil....gals.	3,821,718	800,000	7,154,290	6,798,944
Cresols and cresylic acid, ADF....gals.	43,816	255,581	67,583	397,285
Naphthalene, melting point less than 79° C.lbs.	3,486,605	4,307,596	8,707,961	8,810,964

Coal Chemicals

$35,274 arrived at New York. Average price—11.5c. per pound.

Switzerland—110,228 pounds valued at $12,476 arrived at New York. Average price—11.3c. per pound.

Canada—61,000 pounds valued at $3,355 arrived at Buffalo. Average price—5.5c. per pound.

Although February imports declined late reports indicate March arrivals will be considerably higher. Material has been arriving in large volume and at prices far below the 15c. to 15½c. a pound levels which existed through a great part of last year.

Pyridine—Refined 2° material remains in critically tight supply.

Most contract customers are on allocation with regard to drum sales.

Spot offerings of pyridine are going at far above contract price.

One prospective purchaser was offered a lot of 20 drums last week at a price of $1.35 a pound, or nearly double the contract schedule.

One major producer comments that there is little indication of an improvement in domestic supply in the near future.

Dyes

Direct Black 38 (C.I. 59825)—Production in January was 426,948 pounds. Total output in 1960 was 5,429,063 pounds.

Vat Green 1 (C.I. 59825)—Output in January was 247,042 pounds. Total 1960 production was 2,386,656 pounds.

Intermediates

Phthalic Anhydride—Supply is reported to be easing.

Most producers are still allocating material nevertheless but there is a tendency to increase quotas.

Customers are persistent in attempts to obtain more than their allocated volume.

Producers frankly wonder if customers would take 100 percent of their stated needs if material was available, however.

There are reports of customer pressure concerning price much along the same lines as occurred in phenol and dodecylbenzene earlier this year.

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ended April 8, were as follows:

Ammonia liquor	lbs.	507,220
Ammonium sulfate	lbs.	21,590,326
Benzene	gals.	2,325,554
Coaltar	gals.	11,733,041
Crude chemical oil	gals.	459,369
Solvent naphtha	gals.	76,561
Toluene	gals.	516,790
Xylene	gals.	143,552

The increased availability of naphthalene, and therefore phthalic anhydride, is the spur to this as yet unconcerted customer reaction.

Prospects of continued improved supply are good.

One producer reports he is using less orthoxylene in his production line due to increased availability of naphthalene both from domestic and foreign sources.

Styrene Monomer—Volume of business is relatively unchanged since the recent price cut became effective.

One major producer last week commented that the price slash apparently had not stimulated orders.

Production of styrene has been dropping steadily since mid-1960 and, according to trade sources, does not show any sign of rebounding as yet.

Auto production has turned up, it's true, but new car inventories are still high. A good Spring auto sales splurge is expected and with it, styrene producers hope, an upturn in styrene business.

Export volume in recent months has jumped as domestic production has declined.

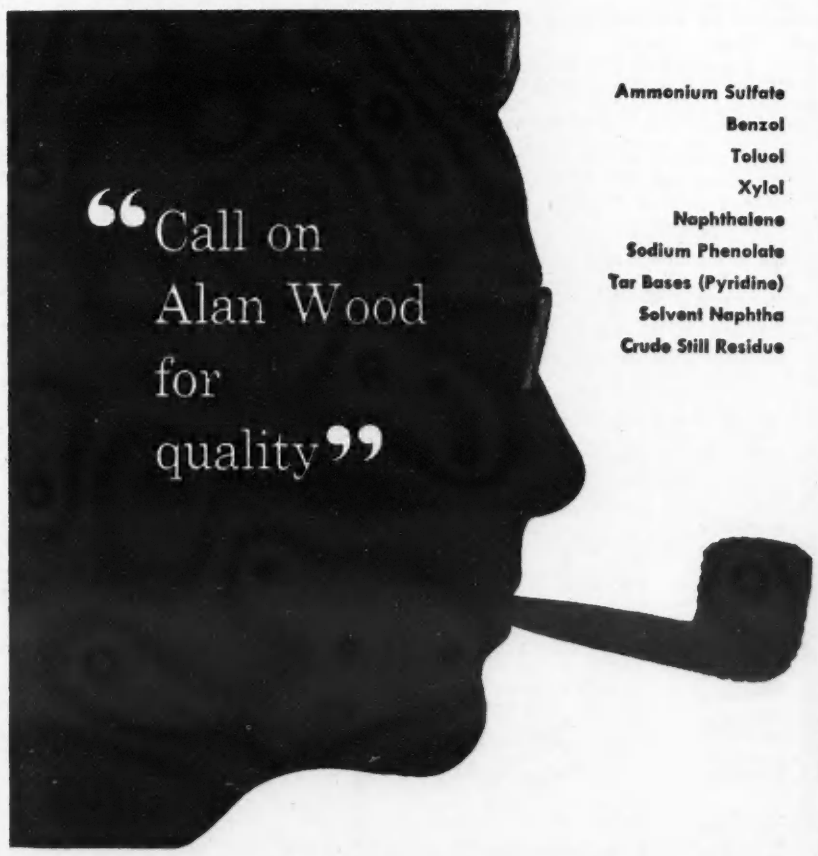
Styrene exports in February totaled 24,744,835 pounds valued at $2,812,228, up from January's 5.8 million pounds and the largest shipment since last September.

Destination., volume, value and exit port designation follows:

Netherlands—21,120,331 pounds value at $2,397,235 left from Galveston district. Thih volume represents one of the largest monthly shipments made to an individual country.

Italy—2,204,600 pounds valued at $242,506 also left from Galveston district.

Mexico—1,291,354 pounds valued at $151,476 left from Laredo district.



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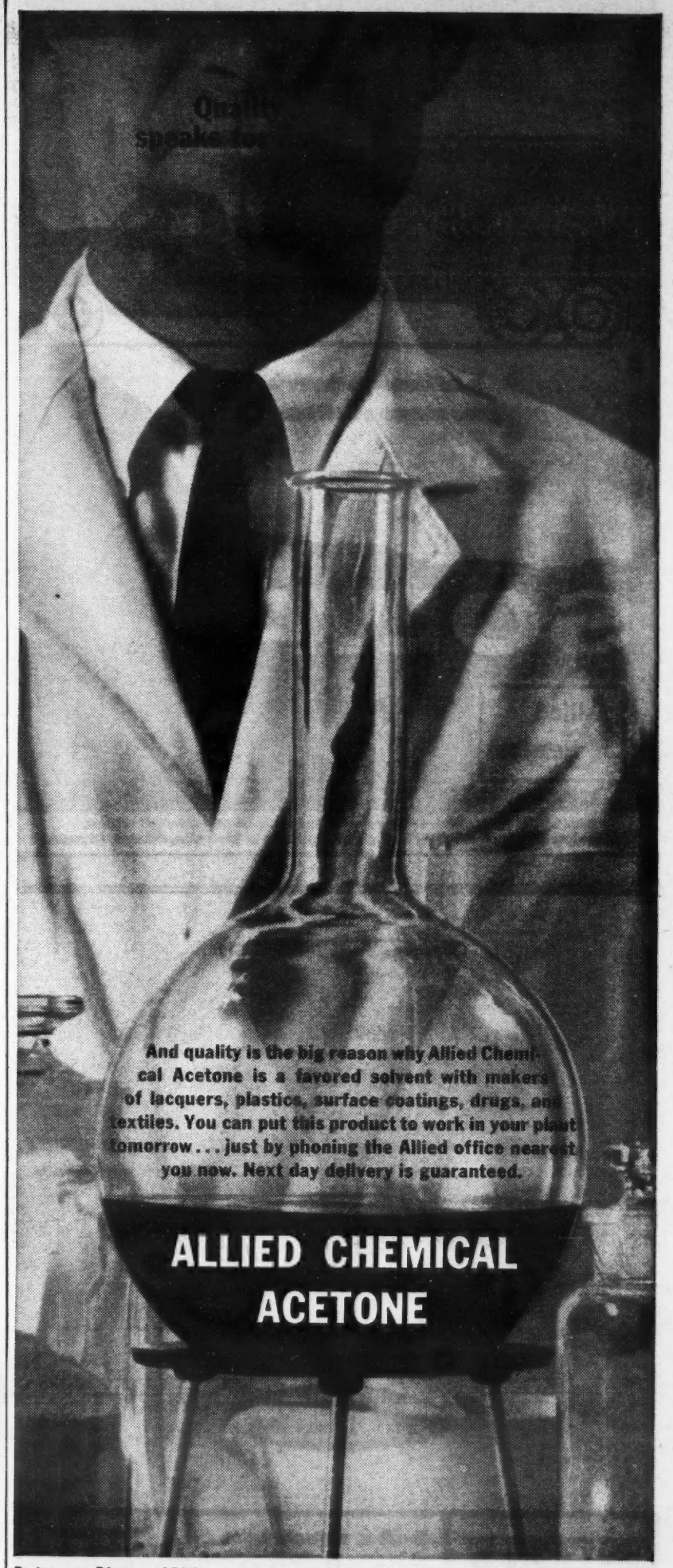
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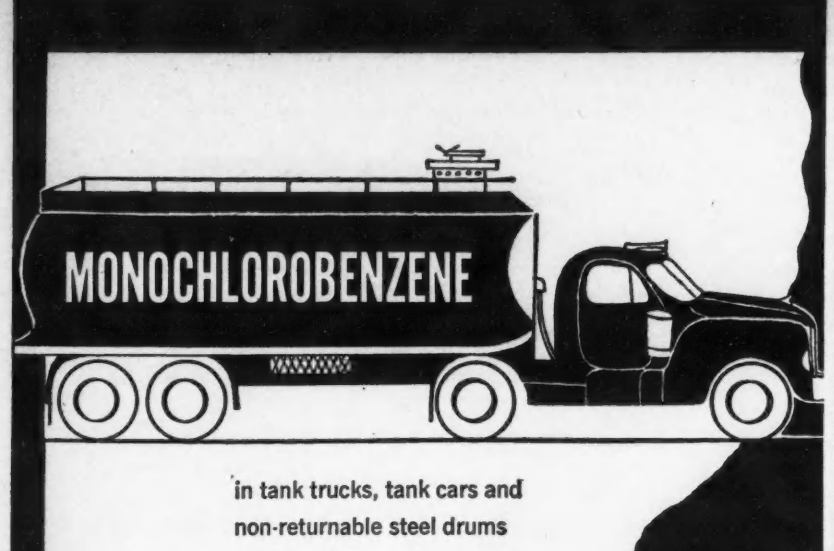

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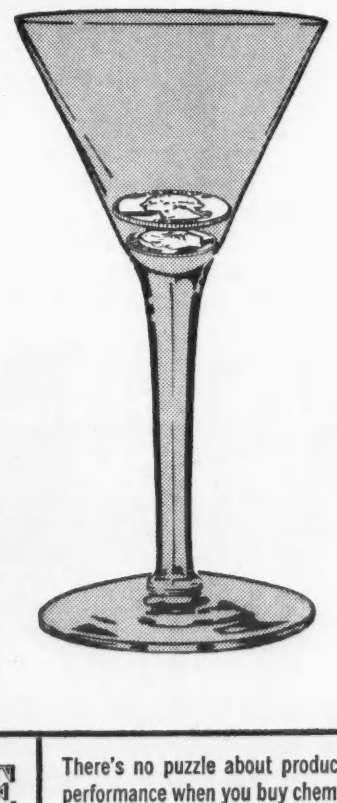

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Obituaries

Otto Dewey Donnell

Otto Dewey Donnell, retired president of Ohio Oil Company, Findlay, Ohio, died in that city April 9. He was seventy-seven years old. Mr. Donnell had been with the company since 1895.

Joseph E. Stevens

Joseph E. Stevens, who for sixty years had been associated with various companies specializing in the extraction of chemicals from wood, died April 11 in New York. He was ninety-one years old.

During his career, Mr. Stevens had been associated with: New York Tanning & Extract Company, Argentine Quebracho Company, New York & Paraguay Company, Catalytic Company, and West Virginia Wood Chemical Company.

Dr. Joseph Shirey Butts, professor of biochemistry and head of the department of agricultural chemistry at Oregon State College, Corvallis, Ore., died April 2 in New Delhi, India. He was fifty-seven years old.

Irving L. Darling, vice-president of France, Campbell & Darling, Kenilworth, N. J., died in Atlantic City, N. J., on April 6.

Pharmaceutical Bids Asked By United Arab Republic

Bids are invited until June 1 by the United Arab Republic for a supply of pharmaceutical chemicals, medical oils, and waxes, reports the Bureau of Foreign Commerce.

Quantities covered by the tender are estimated to take care of UAR's requirements during fiscal year July 1, 1961 to June 30, 1962.

Bids must be submitted direct to the Director General, Supreme Organization for Drugs, 6 Shawarby street, Cairo, Egypt. Due to the nationalization of pharmaceutical trade the Supreme Organization for Drugs is now sole importer of pharmaceutical products in the United Arab Republic.

Specifications and terms of contract are available on loan from BFC's trade development division, Department of Commerce, Washington 25, D. C.

Allied Is Ringing Up

—Continued from page 5

Reed, vice-president in charge of development for Solvay, says the Baton Rouge plant will make propylene oxide-based polyethers by a new and improved process based on a unique reactor design, following four years of research, process development, and field testing.

National Aniline Division, which has been manufacturing a line of di-isocyanates since 1953, will also market the polyethers to the urethane industry.

National Aniline's application research laboratory at Buffalo, N. Y., and Solvay's research department in Syracuse, N. Y., are cooperating in developing many types of polyethers. The Buffalo research team is evaluating these polyethers in making urethane foams, coatings, ad elastomers. National Aniline is also field-testing the polyethers in commercial urethane foam production equipment. During 1960, National Aniline conducted 18,000 tests on polyethers.

Allied Chemical started research on polyethers at its Central Research Laboratory at Morristown, N. J., in mid-1957. Early in 1958 Solvay was selected for the development work because of its research and technical experience in fields related to polyethers and the project was transferred to Syracuse. Construction of the Baton Rouge plant was begun in November 1960.

Wilson-Martin Offering New Low-Cost Stearic Acid

A new, low-cost stearic acid has been introduced by Wilson-Martin, Philadelphia, the organic chemical division of Wilson & Co. The material, trade-named "Wilmar 270," is claimed to have light color, low odor and high heat stability comparable to the best domestic grade of triple-pressed stearic acids now available.

The new product has been successfully test marketed in a number of industry applications including candles, esters, emulsifiers, stearates, textile softeners and cosmetics, according to Wilson. It is now ready for widespread marketing, the company adds.

The new process for developing this acid is said to have been under development for four years. The product is available in fine flake form in fifty-pound multi-wall paper bags or bulk in tankcars or tanktrucks.

Preventive Medicine

—Continued from page 4

unintentional and wasteful duplication of effort.

Part I of the committee's report released last week is devoted exclusively to budgeting and accounting phases of the federal health effort. Part II—a staff compilation—on both the life and physical sciences is to be published later.

Sen. Humphrey observes that from 1938 to mid-1960, congress appropriated to the National Institutes of Health a total of $1.6 billion. But, he adds, this overall total is about the amount which the Department of Defense has spent in the last two years in research and development projects which it had cancelled before finished hardware was produced.

"In other words," he says, "for the sound goal of national security, the US government spent in only two years for implements of destruction, which were abandoned before a model was finished or tested, as much as it spent in the last twenty-two years for research, which has enriched al 180 million Americans, the entire human race and generations unborn."

Wittner Helping the Businessman

Fred Wittner Company, New York advertising and public relations concern, has just turned out a booklet for the busy businessman: "Why, When and How to Read Business Publications." It has been earmarked for distribution through Associated Business Publications and National Business Publications. In addition, the Department of Commerce is sending copies to all of its offices, here and abroad.

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TECHNICAL DIRECTOR: Robert C. Davidson, appointed director of the catalyst division of Nalco Chemical Company, Chicago.

Eye Make-Up Cosmetics Under FDA Investigation

A nationwide investigation of eye make-up cosmetics is being made by Food & Drug Administration. Two brands of make-up, alleged to contain non-certified coaltar dyes, were seized by the agency last week.

A quantity of Hazel Bishop eye pencils, used for coloring the eye-brows and lining the eyes, were confiscated in New York and in Trenton, N. J. A number of Anita d'Foged make-up kits, assembled from components imported from Denmark, were seized in possession of the firm in Beverly Hills, Calif.

The seizures were the first in recent years involving eye make-up and were made on the basis of investigations instituted from consumer complaints, officials said. No injuries from use of the products, however, were reported by FDA.

The agency said an investigation is underway to see whether other lots of these products and other brands are in violation of the FDA law and the recently enacted color additives amendment.

Drugs and Their Origins

—*Continued from page 4*

merce or held for sale after shipment in interstate commerce and consequently are not subject to the misbranding provisions of the federal law. He contended that any misbranding must be with respect to an article which is in itself shipped in interstate commerce or held for sale after shipment in interstate commerce.

Judge Levin noted, however, that five of the six active ingredients of "Korleen Tablets," choline, inositol, methionine, niacinamide, and thiamine, are "drugs" listed in the USP and by definition are made subject to the federal act.

Contrary to the company's claims that since the active ingredients are in common usage in the industry they lose their identity as individual components when combined to form "Korleen Tablets," Judge Levin ruled:

"It is evident that if only choline or the other 'drugs' comprising the tablets were shipped in interstate commerce to Michigan, tableted, and misbranded, the 'drugs' would be subject to seizure under the act.

"It would be a strained interpretation to say that each 'drug' component falls within the jurisdiction of the act, being shipped in interstate commerce, but, when compounded together to form another 'drug,' the finished product is not being held for sale after shipment in interstate commerce.

"The logical conclusion of the claimant's argument is that a separate manufacturing and distributing operation could be established in each state to manufacture that state's brand of "Korleen Tablets" from ingredients shipped in interstate commerce, and yet none of the tablets would have been 'held for sale after shipment in interstate commerce.'

"The Supreme Court has warned against creating 'loopholes,' at the expense of public protection, through restrictive or technical constructions of the act."

'Dacron,' Nylon Staple

—*Continued from page 4*

patent wrangle with duPont over polyformaldehyde resins (see story on page 3).

DuPont made the nylon price cuts "to put these products in a more favorable economic position relative to competing fibers." The prices of "Dacron" and nylon filament yarns hold unchanged. DuPont says it won't cut "Orlon" prices either.

Gas Reform Breakthrough Just Announced by Chemico

Chemical Construction Corporation, New York, is telling about a major breakthrough in gas reforming that took place when a Chemico high pressure gas reform, furnace, operating at 250 psig, was recently placed on stream at an ammonia plant built for the Office National Industriel De L'Azote (ONIA) in Southern France.

According to Chemico, prior to the completion of this project no gas reformer in the world had ever operated at pressures above 175 psig. Chemico's latest design innovation for the production of synthesis gas eliminates the necessity of one of the numerous compression stages normally required in a plant of this type by reforming natural gas at a pressure of 250 psig.

Merchants Products Appoints Rieling

Merchants Products Company, Philadelphia chemical distributor, has appointed Edwin P. Rieling, jr., as general manager. Mr. Rieling previously was Philadelphia chemical branch manager of McKesson & Robbins, Inc. Earlier, he was associated with his father, E. P. Rieling, in the textile dyeing and finishing business.

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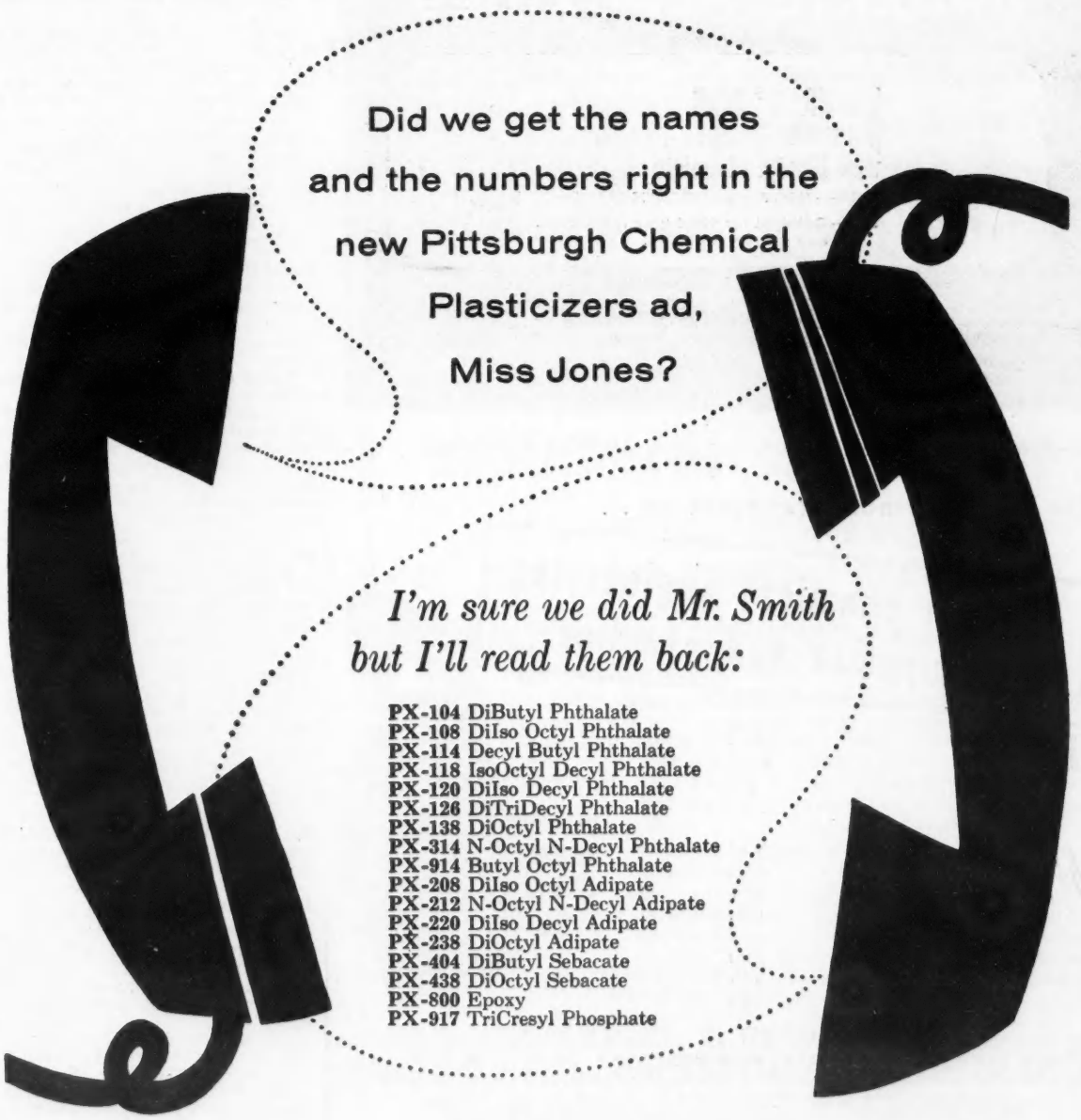

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Trade Name Chemicals

Resorcinol-Formaldehyde Outlook: Small Boats Hold Key to Big Sales

Chemical sources aren't quite sure where the increase in sale of resorcinol-formaldehyde resin adhesives is taking place, but a logical outlet is the consumer small boat market which has been such a boon to polyesters in recent years. It seems certain that there hasn't been more than a token increase in industrial wood bonding applications, sources say. Here, the trend has been, and will continue to be, to the use of combination phenol-resorcinol resin adhesives for plywood applications requiring high impact strength and room temperature cure plus waterproof bonding.

Research work with resorcinol in the industrial wood working field is primarily directed to turning out new, lower-cost phenol-resorcinol adhesive formulations for the west coast plywood industry.

However, with the do-it-yourself trend, a small package outlet has been generated for resorcinol adhesives on the consumer level, and it may be that this market has given more support than is generally believed, sources report.

Tariff Commission reported sales of straight resorcinol-formaldehyde resins amounted to 4.9 million pounds in 1959, up from 1.1 million in the previous year, and most observers feel the market will stay right around the 5 million pound mark for the near future.

R-F RESIN SALES

1961	*5.2 million lbs.
1959	4.9 million lbs.
1958	1.1 million lbs.
1957	2.2 million lbs.
1956	2.4 million lbs.
1955	3.5 million lbs.
1954	3.8 million lbs.

*Estimate

Source: Tariff Commission

Straight Resins One-Fourth Total Market

However, it's pointed out that straight resorcinols account for only about one-fourth of the total amount of resorcinol-containing resins which are marketed today.

Because the raw material carries a premium price—historically four to five times that of phenol—the bulk of volume in resorcinol-containing resins is in products that are phenol-modified.

This type of product is relatively low cost (20c. to 25c. less than a straight resorcinol resin) and finds use in special plywood applications where straight phenolics cannot be used and a high impact, waterproof bond is desired.

Would a lower resorcinol price increase the amount of unmodified resin sold? Most chemical men think not. They point out that there are only so many places where a straight resorcinol adhesive is really needed.

Specific markets are in boat building to meet military specifications, in laminated arches where a bond as durable as heat-cured phenolics is needed, but use of high temperatures is not feasible, in poor-fitting or gap-filling surfaces, or in sports equipment where high-impact strength is needed.

The average unmodified resorcinol product is supplied in liquid form of 50 to 60 percent solids in alcohol or water or both. A formaldehyde-containing catalyst or accelerator is also used and mixed with the resin liquid shortly before use.

Resorcinols Strong Points

Storage life is considerably longer than the phenolics. In addition, resorcinols cure at room temperature, a strong point in applications where use of heat curing is not possible.

Use of other dihydric phenols in resins has not been extensive. Catechol has received some attention, but resorcinol resins are the most important commercially. Among polyhydric resins, they are the only ones used directly in adhesives to any great extent.

On the raw material level, both Heyden Newport Chemical Corporation and Koppers Company make resorcinol. Koppers also offers resins under the "Penacolite" trade name and it is generally agreed that the Pittsburgh, Pa., firm is the largest producer of both raw material and resins.

"Penacolite" resorcinol adhesives are applicable in bonding of all cellulosic materials and some thermosetting and thermoplastic resins, as well as natural and some synthetic rubbers.

"Penacolites G-1124" and "G-1131" are unmodified resorcinol-formaldehyde resins marketed by the company. "G-1124" is formulated in a water-alcohol solution in which is suspended a finely-divided filler to provide better bonding for oak and other species having large rays. The product finds use in laminating ship timbers, in gluing of oak and in bonding nylon to nylon.

"Penacolite G-1131" is useful in bonding wood and some plastics. It is also applicable to bonding of nylon to nylon and phenolic laminates to themselves or wood.

Phenol-modified resorcinol adhesives marketed by Koppers are "G-1260," "G-1222," and "G-1288." The latter is recommended by the company as an adhesive product especially formulated for those applications where economy measures will not permit the use of straight resorcinol adhesives.

An "in-depth" line of resins for general and marine laminations and for hot pressing plywood and hardwood panels to wood stiffeners and frames is available from Borden Chemical Company under the "Cascophen" trade name.

Borden Offers Liquids and Powders

The company offers liquid and powder forms of resorcinol, phenol, or phenol-resorcinol resins for adhesive applications where the bond is exposed to intermittent or continuous moisture, cold or boiling water, moist or dry heat, mold or fungus, or most organic solvents.

Borden's straight, liquid resorcinol products are "Cascophen RS-216" and "RS-224" for use at room temperature with a p-formaldehyde-formulated catalyst.

The materials are used primarily in boat building, but are applicable anywhere high impact strength is needed. Sports equipment, gap-filling surfaces, and laminated beams are other examples of types of applications which utilize these products.

Low-cost phenol-resorcinol resins used to form waterproof, durable bonds with plywood are also marketed by Borden. "Cascophen W-196" is a phenol-resorcinol liquid, while "Cascophen HP-401D" and "HP-403" are phenolic powders. These products are for high-temperature cure.

R.T. Cure With Modified Products

Room temperature-setting, phenol-resorcinol resins manufactured by Borden are "Cascophen LT-68" and "RS-240M." Catalyst used with these products is "FM-124."

"Cascophen" phenol-formaldehyde resin liquids and powders are curable only under hot press conditions, with the exception of a specialty liquid product, "Cascophen LT-47M." The resin functions with "Catalyst OA-12" at room temperature as an acid-setting adhesive to form a highly durable bond with a colorless glue line.

Resorcinol resin offered by Catalin Corporation of America are designated "Catalin Resin 726," "731" and "736." All are in liquid form with 55-57 percent solids for both hot and cold press applications.

"Resin 726" is recommended by the company for gluing wood at room temperatures and laminating of white oak at intermediate temperatures (150-190 degrees F). Working life of a glumix of this product, composed of 100 pounds of "726" and 20 pounds of "Catalin Accelerator 30," is 3-4 hours at 60-70 degrees F.

"Resin 731" is a liquid, phenol-resorcinol adhesive also used with "Ac-

—Continued on page 67

Agricultural Chemicals

The flow of farm chemical imports in February included sizable gains in potassium chloride, sodium nitrite and urea. Inshipments of potassium chloride jumped 10,000 tons, urea imports climbed 1,000 tons while sodium nitrite shot up 48,000 tons, compared to imports in January. The dramatic boost in nitrite inshipments is not felt to be the result of any unusual market development here, but was caused by a strike that piled up shipments.

With the strike settled, shipments were pushed through to make up the backlog of orders. The market for sodium nitrate continues to be excellent in all respects, prices are at their year-old listings and are unchanged.

Despite the 10,000 ton increase in potassium chloride imports in February, the total is still some 16,000 tons short of the 65,000 tons imported in February of 1960. Added to Customs list, after several months absence was the USSR. Although the largest imports of potassium chloride were shipped from West Germany and France (36,000 tons), Russia chipped in with some 6,000 tons in February, Customs reports.

Pesticide bids estimated at $370,000 are being sought by the Greek Trade Ministry, reports the US Department of Commerce. Bid Invitation No. 96 calls for 150 metric tons of 20 percent 2-chloro-2-diethyl-1-methyl vinyl di dimethyl phosphate (ROGOR) in wettable form. Earliest delivery time should be stated since preference will be given, between offers of equal price those offering earliest delivery time.

Bids should reach Direction B, State Purchase, 50 Socrates Street, Athens, by 1 PM, April 24. Offers should be valid for at least 45 days. Terms and specifications are available on loan from the Bureau of Foreign Trade, Trade Development Div., US Department of Commerce, Washington.

Ammonium Phosphates—Production of ammonium phosphates in February totaled 22,018 tons with stocks on hand at producer's plant estimated by Census at 38,509 tons. Stocks, shipments and output for ammonium phosphate for the first two months of the year were basically unchanged. For February of 1930, stocks on hand totaled 31,833 tons, some 7,000 tons less than the same month this year. Imports of ammonium phosphate in February totaled 9,096 tons with a value of $608,190. February's imports all originated from Canada.

Ammonium Sulfate—The tight supply situation continues to thwart attempts to take full advantage of the fertilizer business now available, sources report. Fertilizer applications are now in progress in much of the eastern states, alternately helped and hindered by weather conditions.

Imports of ammonium sulfate in February totaled 16,277 tons, reports Customs. Total values for February imports was placed at $549,846 split between Canada and West Germany. Canada's shipments accounted for 12,971 tons, worth $462,796. West Germany supplied 3,306 tons with a value of $87,050.

Animal Proteins—The renewed strength of the fishmeal market has prompted some long range estimates of the fishmeal market in the past few weeks. Food & Agriculture Organization of the United Nations adopts the view that a partial recovery in the world price of fishmeal is an absolute certainty.

According to a spokesman for the organization, the fishmeal market has changed radically in the nature of its competition with other high protein feeds. On this basis, the organization expects that the premium fishmeal will be able to command will be lower in comparison to other high protein feeds. Nevertheless, the outlook indicates that the price for meal will stabilize at levels attractive to the industry.

Other factors that have played a decisive role in fishmeal market trends include: reduced poultry and pig production, soybean feed competition, and an uneven rate of production. The organization points out that each of these factors have reduced demand for meal but in recent months boosts in poultry and pig production, plus control of fishmeal supply and the reduction in the competition, has added new strength to the market.

FOA sees new market for fishmeal opening up. One potential source for fishmeal would capitalize on its high-sulfur content.

West Germany, reported to be the world's second largest consumer of fishmeal, has recently made available its estimate of the fishmeal market. The West Germans see the price of fishmeal setting the pace of fishmeal sales, with a ceiling of about $100 to $110 per ton (c.i.f. European ports) being set. The West Germans feel that fishmeal producers should make special efforts to opening new markets (as in Spain, Yugoslavia, Greece and Israel) and to give greater attention to the production of fish flour.

In regard to the supplies of fishmeal, the West German study estimates that before 1959 the world supply of fishmeal was about 100,000 to 200,000 tons a year which was insufficient to meet demand and resulted in the high prices for fishmeal. Despite the recent boosts in production made in Peru, the Germans do not feel that there is actually an oversupply of fishmeal in the world market.

Price Trends

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None

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None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	April 15, 1950
111.65	111.00	111.00	110.95

For Current Prices see page 9

Agricultural Chemical Briefs

EXEMPTION GRANTED: Copper sulfate pentahydrate was added to the list of compounds now exempt from tolerance requirements under the Miller pesticide law by the Food & Drug Administration last week.

The action made final an order proposed last February.

Farm Chemicals Imports: February

Following are data compiled by the Bureau of Census indicating volume of imports of agricultural chemicals for February and January, 1961. Figures for ammonium phosphates and fishmeal and scrap account only for that material intended for use as fertilizer. All figures are in short tons.

	January	*February*
Ammonium nitrate (over 32 percent N)	12,980	11,493
Ammonium nitrate (32 percent N or less)	22,503	4,129
Ammonium phosphate	10,492	9,096
Ammonium sulfate	22,752	16,277
Calcium cyanamide	2,400	2,791
Castor bean pomace	—	1,102
Dried blood	271	423
Fishmeal and scrap	1,910	4,589
Guano	5	10
Nitrogen Solutions	3,596	3,750
Peatmoss (fert. grade)	10,895	19,038
Phosphates, crude[2]	7,347	8,254
Potassium chloride, crude	33,951	49,968
Potassium nitrate, crude	71	181
Potassium sulfate, crude	9,098	4,217
Sodium nitrate, crude and refined	10,512	58,774
Urea	7,158	8,603

[1] Figures not reported.
[2] Including apatite and phosphate rock.

We're name dropping, but...

we're doing it in order to make it easier for you to order. A special committee of the National Plant Food Institute has suggested that the variety of names for the same potash product has resulted in confusion, and Big Chief Kay-Two-Oh is happy to go along with the rest of the industry in standardizing product names. As of the new season, July 1, the following names will apply to PCA products:

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(formerly Standard)

PCA COARSE
(formerly Special Granular)

PCA GRANULAR
(formerly Coarse Granular)

For top quality Potash, and top service . . .
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TWX NY 1-5386

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CARLSBAD, NEW MEXICO
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Midwestern Sales Office: First National Bank Building, Peoria, Illinois
Southern Sales Office: 1776 Peachtree Building, N.E., Atlanta, Georgia
Canadian Sales Office: 2 Carlton Street, Toronto 2, Ontario
"America's CHIEF Supplier of Potash"

PCA The SALT of the EARTH

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• SULPHUR
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DUVAL SULPHUR & POTASH CO.
EXCLUSIVE SALES AGENT
ASHCRAFT-WILKINSON COMPANY
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Air Milling, lightweight fertilizers, custom packing
LEBANON CHEMICAL CO.
P. O. 532, LEBANON, PENNA.

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Fungicides
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As outstanding products we offer these "BARQUATS"
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Lauryl Isoquinolinium Bromide 75%
Alkenyl Dimethyl Ethyl Ammonium Bromide 50%
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Amobarbital	Aprobarbital
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Pentobarbital	Mephobarbital
Phenobarbital	Secobarbital

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Drugs, Fine Chemicals

For several major drug and fine chemical makers, 1960 wasn't the bang-up year customarily expected of firms in this industry. Profits suffered in some instances and lower prices rather than a giant loss of sales generally explained the decline in revenues. First quarter '61 business hasn't been up to par either, according to reports issued by several manufacturers last week, and on top of these disappointments the industry is afflicted with threats of tighter controls by both federal and state governments.

Some firms have used annual reports to stockholders to sound-off about the complexity of dealing with the regulatory agencies and to reply to such critics as Estes Kefauver and other industry probers. And last week, answering critics who accuse the trade of reducing the labor force by establishing plants overseas, a prominent industry spokesman explained to a local chamber of commerce group that the foreign expansions were, in fact, not only essential international marketing tools but keeping other plants running at capacity here, as well.

He noted that his firm had to establish a facility in Peru if it wished to do business there. This was because the Peruvian government has placed an embargo on finished pharmaceuticals. By operating locally, he explained, his firm is able to import chemical intermediates it manufactures state-side. And it must be content to do this or lose the market completely.

Also holding down profits is the huge sum of money going into research. Drug firms are racing one another for new products, which, if eminently successful, can zoom profits temporarily or until a newer development comes along. But most of the time, a lot of money goes down the drain.

Last year, prescription drug makers spent $215 million in their research and development efforts, up $18 million from the '59 expenditure and an all-time high.

In 1961, according to a Pharmaceutical Manufacturers Association survey, some fifty-six companies expect to need some 600 additional scientific staff personnel, or about 10 percent more than are presently employed. And up goes the bill for research.

Camphor—Synthetic camphor imports in 1960 were almost four times the 1959 volume, as the table below reveals. And making the domestic market for the product even more competitive was a further —if lesser—increase in refined camphor imports.

The uptrend in foreign shipments here provoked the one remaining US manufacturer of camphor to drop prices twice within the fourth quarter last year. What's happened in the interim?

Well, while there was a decline in imports of synthetic camphor in January, February brought an upturn. Volume ran to 198,000 pounds (valued at $71,104 and dutied at $9,900), with the United Kingdom (168,000 pounds) and West Germany (30,000) the only suppliers.

Imports of natural refined camphor the same month totaled 24,200 pounds and were valued at $9,605 and dutied at $726. Taiwan accounted for 23,200 pounds and Japan, 1,000 pounds.

With non-industrial demand for camphor rising seasonally, there's new activity in the market. The rise in imports in February was probably anticipatory of this development.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	April 15, 1960
59.29	59.29	59.28	60.36

For Current Prices see page 9

Gelatin—Although production declined and shipments increased slightly during the month, stocks at February's end were up—totaling 13,859,000 pounds against 13,375,000 thirty days earlier and 11,223,000 a year earlier.

February production of gelatin amounted to 5 million pounds, down from 5,161,000 in January and 5,206,000 in February 1960. Of the total, 4,296,000 pounds were manufactured from hides while the remainder (704,000) was ossein-derived.

Classified by type, output was, in thousands of pounds: edible 3,470; technical 197; pharmaceutical 419; and photographic 833.

Shipments in February were 4,516,000 pounds, up from 4,493,000 in January and 5,573,000 in February 1960. The total represented: edible 3,210; technical 174; pharmaceutical 299; photographic 833 (all in thousand of pounds).

Stocks at February's end, amounting to 13,859,000 pounds, broke down this way: edible, 7,670; technical 995; pharmaceutical 1,493; photographic 3,701 (in thousands of pounds).

Statistics were prepared by the Census bureau from reports submitted by all known manufacturers producing gelatin.

Iodine—February imports of crude iodine totaled 249,809 pounds and were valued, according to Census bureau reckoning, at $224,742. Holding down first place on the suppliers' roster—its traditional place—Chile shipped 219,093 pound at $197,832. The remainder came from Japan ($30,716 pound at $26,910), which country supplied record quantities of iodine to the US in the last quarter of 1960.

Domestic market is stable at prices posted last fall by both a domestic producer and the Chilean supplier. Established at that time was a listing of $1.10 a pound, 15c. higher than that previously quoted.

Menthol—February imports of natural menthol totaled 126,950 pounds, valued at $845,235 and dutied at $44,432, the Commerce department reports.

Shipping here were: Brazil 81,236 pounds, valued at $515,712 and dutied at $28,432; Taiwan 34,000 pounds, valued at $244,789 and dutied at $11,935; France 6,614 pounds, valued at $44,288 and dutied at $2,315; Japan 3,600 pounds, valued at $30,842 and dutied at $1,260; and Argentina 1,400 pounds, valued at $9,604 and dutied at $490.

Imports of synthetic menthol in February were 20,470 pounds, valued at $152,503 and duties at $7,164. Sources were: France 10,461 pounds, valued at $73,780 and dutied at $3,661; Japan 5,100 pounds, valued at $46,729 and dutied at $1,785;

Drug and Fine Chemical Imports: 1960

Imports of selected drugs and fine chemicals for 1960 and 1959, as reported by the Bureau of Census, were as follows:

		1960	1959
Ascorbic acid	lbs.	399,088	*
Caffeine	lbs.	923,426	1,176,849
Camphor, crude	lbs.	7,500	22,500
Refined	lbs.	195,493	156,798
Synthetic	lbs.	1,173,136	311,235
Iodine, crude	lbs.	1,893,958	1,466,238
Menthol:			
Natural	lbs.	898,172	733,252
Synthetic	lbs.	182,312	87,346
Pyridoxine	lbs.	9,376	*
Quinidine and salts	ozs.	927,998	978,868
Saccharin	lbs.	263,554	301,999
Sodium alginate	lbs.	304,777	724,116
Tartaric acid	lbs.	3,744,188	3,679,015
Thiamine	lbs.	56,236	*
Theobromine	lbs.	85,393	59,034
Vitamins and Vitasterols, n.e.c.	lbs.	538,463	772,550

* Not separately reported in 1959.

Drugs, Fine Chemicals

Spain 4,409 pounds, valued at $30,358 and dutied at $1,543; and West Germany 500 pounds, valued at $1,636 and dutied at $175.

As indicated in the box below, synthetic menthol imports last year were more than double '59 volume. Temporary shortages and increased requirements for the natural product—in cigarettes especially—probably account for the uptrend.

Spot market for Brazilian material is a bit weak; in fact, it has been for the past month. Minimal inventory policy on the part of many consumers and the seasonal decline in demand from pharmaceutical users reportedly finds dealers' stocks relatively high and the desire to unload product generally stronger.

Saccharin—Lower prices of domestically-manufactured saccharin may have been one factor which led to the decline in imports last year. Commerce department statistics show a drop of approximately 39,000 pounds—263,554 pounds in '60 versus 301,999 pounds in '59.

But obviously the domestic market is slightly less competitive than it had been for prices were boosted 10c. a pound, restoring the former schedule, early in March. That this was a temporary move, as some observers suspect, is not yet obvious.

Vitamin B_{12}—There have been several interesting developments in this market within the past few weeks. Most recent was the admission of patent infringement by a major brewery, which terminated a lawsuit brought by the major US manufacturer of the vitamin in 1957.

Just before this case was concluded, the same firm filed suits against several companies and individuals, also charging patent infringement, in three states, New York, New Jersey and California.

Earlier in the year, the firm petitioned for and was granted a reclassification of B_{12} as a coaltar derivative. This automatically raised the duty. Whether or not it will lessen import volume is still a speculative matter, but the feeling among trade people is that it will.

Consequently, with less competition from importers and small domestic manufacturers such as the one which has consented to halt production of vitamin B_{12} concentrate, the market should firm up.

Botanicals

Agar Agar—Although some new crop material has arrived here recently, reportedly, prices remain at the high levels posted several weeks ago. Kobe No. 1 strip is quoted at $3 to $3.10 a pound and the powder at $2.40 to $2.60.

Advices from source that the quantity available for export this year is shorter than expected has put pressure on spot prices, it's explained.

Chamomile Flowers—Quote on the Roman flowers was advanced last week to a range of from $1.75 to $2 a pound, about 25c. higher than that previously listed. A dealer in the botanical explained that stocks are diminishing in face of moderate to good inquiry and a shortage could develop before late summer when new crop arrivals are anticipated.

Hungarian chamomile, meanwhile, is firm at the schedule established a few weeks ago—$1 to $1.25 a pound.

Lycopodium—Price stability has prevailed for many months and the quote, $2.50 to $3 a pound, will likely be posted for many more weeks to come, according to some trade reports.

There is said to be only modest inquiry for this botanical which was at one time used industrially in good quantity.

Described as "a creeping, prostrate, horizontally-branching, perennial club moss," the lycopodium plant grows in Europe, Asia and North and Central America. In 1947, 27,926 pounds were imported from Russia and Canada, reportedly.

Maine and New Hampshire are said to be producing a considerable amount of the current US supply. Much of it is said to be used in the manufacture of fireworks.

Drug, Fine Chemical Briefs

AID TO HEART PATIENTS: "CVP," a water-soluble bioflavonoid substance, has been found effective in preventing "little strokes" caused by blood seepage from minute capillaries and arterioles. A combination of vitamins P and C, the drug is designed to strengthen the walls of blood vessels and thus prevent hemorrhage, which is said to be responsible for three-fourths of all "little strokes." "CVP" is a product of U. S. Vitamin & Pharmaceutical Corporation, New York.

DISTRIBUTOR NAMED: Burkart-Schier Chemical Company, Chattanooga, Tenn., has been named southeast distributor of alginate products for Societe Nourylande of France, by Edward Mendell Co., exclusive US representative of the French firm. Nourylande has been producing alginates for the textile industry since 1931.

POISON IVY PREVENTIVE: Clark-West Division of Syntex Laboratories, Inc., New York, is marketing a high-potency form of its oral poison ivy preventive, "Aqua Ivy," which reduces the time required for full immunity by one-third and the cost of immunization by 45 percent. The new tablets, available at $5.60 per hundred, contain twice as much active ingredient, dry alum-precipitated pyridine ivy—as the original drug.

SERVICES EXPANDED: Jarrell-Ash Company has expanded its laboratory services to include gas chromotography, X-ray diffraction, dissolved oxygen, and fluorometry. Inquiries regarding analytical problems and quotations for services should be addressed to Boyd M. Fagan, at 26 Farwell Street, Newtonville 60, Mass.

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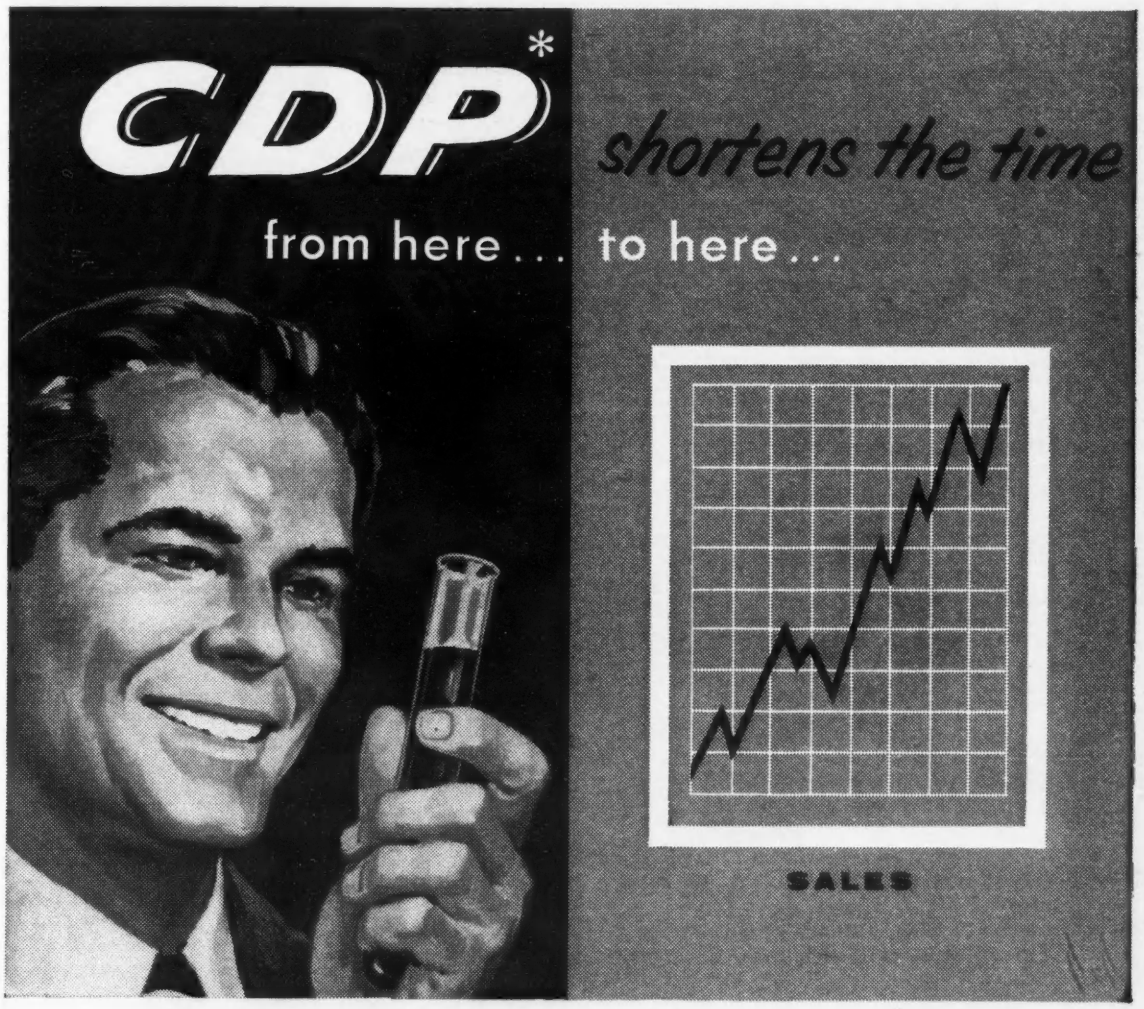

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IMPORTS at United States Ports

New York

AGAR—50 bbls, La Coruna
ALKYL BENZENESULFONIC ACID—1 dm, Procter & Gamble Co, Haifa
ALUMINUM SULFATE—331 bgs, Philipp Bros Chemicals, Bremen
AMMONIATED MERCURY—1 cs, E T Browne Drug Co, Southampton
AMMONIUM CARBONATE—515 dms, Philipp Bros Chemicals, Rotterdam
90 dms, BASF Inc, Hamburg
12 dms, American Agricultural Chemical Co, Glasgow
AMMONIUM PERSULFATE—200 dms, Riches Nelson, Rotterdam
AMYLOSE—100 bgs, National Starch & Chemicals Corp, Rotterdam
ANILINE DYES—32 dms, Carbic Hoechst Corp, Rotterdam
21 dms, Wedeman & Godknecht, Hamburg
27 dms, H Bruckmann & Lorbacher, Hamburg
16 dms, Sandoz Inc, Havre
145 dms, Rotterdam
ANNATTO SEED—31 bgs, Dorf International, Kingston
200 bgs, H Kohnstamm & Co, Kingston
440 bgs, Kalamazoo Spice Extraction Co, Ciudad Trujillo
441 bgs, Chase Manhattan Bank, Ciudad Trujillo
ANTIMONY OXIDE—90 bgs, Indussa Corp, Antwerp
ARABIC GUM—10 dms, Meer Corp, Cadiz
ARROWROOT FLOUR—441 bgs, Morningstar Paisley Inc, Itajai
ASBESTOS FIBER—5,100 bgs, N American Asbestos Corp, Lourenco Marques
500 bgs, Mundet Cork Corp, Lourenco Marques
ASCORBIC ACID—24 dms, Byron Chemical Co, Kobe
BALSAM—10 cs, Magnus Mabee & Reynard, Barranquilla
2 dms, Polaks Frutal Works, La Libertad
BEESWAX—25 bgs, Machado & Co, Ciudad Trujillo
50 bgs, Porcelia Vicini & Co, Ciudad Trujillo
125 bgs, Kone Import Corp, Buenos Aires
58 bgs, J H Schroder, Lisbon
100 bgs, International Commodities Corp, Itajai
66 bgs, Eastern Mohair & Trading Co, Casablanca
112 bgs, Tampico
90 blks, Djibouti
64 bgs, Puerto Plata
38 bgs, Port Au Prince
BENZOIN GUM—30 cs, M M Joosten & Jansen, Bangkok
BLANC FIXE PULP—31 dms, C J Osborn Co, Rotterdam
BLEACHING POWDER—60 dms, Chemical Manufacturing Co, Liverpool
BOIS DE ROSE OIL—8 dms, Northam Trading Co, Callao
BONE CHARCOAL—100 bgs, Martin Baer & Co, Lisbon
BRONZE POWDER—10 dms, M Snedeker, Hamburg
20 dms, Hamburg
CALCIUM CARBONATE—600 bgs, Whittaker Clark & Daniels, Liverpool
CALCIUM HYPOCHLORITE—600 dms, Yokohama
CAMPHOR POWDER—50 cs, Manufacturers Trust Co, Keelung
CANDELILLA WAX—313 bgs, Tampico
CARAWAY OIL—5 dms, Norda Essential Oil & Chemical Co, Rotterdam
CARAWAY SEED—100 bgs, Star Coffee Co, Rotterdam
100 bgs, J H Elton, Rotterdam
300 bgs, Levy & Levis Co, Rotterdam
200 bgs, H J Spitz, Rotterdam
100 bgs, Biddle Purchasing Co, Rotterdam
200 bgs, Ide-I Trading Co, Rotterdam
300 bgs, Rotterdam
CARDAMOMS—22 cs, V A Cordovi, Colombo
CARMINE—1 cs, Lo Curto & Funk, Havre
CARNAUBA WAX—89 bgs, M Argueso & Co, Fortaleza
75 bgs, Schmidt Pritchard, Fortaleza
22 bgs, Smith & Nichols, Fortaleza
22 bgs, Chemical Bank, Fortaleza
66 bgs, Colonial Trust Co, Salvador
134 bgs, J W Hanson Co, Fortaleza
181 bgs, S C Johnson & Son, Fortaleza
111 bgs, Wm H Muller, Rotterdam
CASEIN—150 bgs, First Spice Co, Rotterdam
1,800 bgs, J R Spellacy, Melbourne
235 bgs, F H Paul & Stein Bros, Oslo
CASSIA—500 bls, R J Spitz, Saigon
CASTOR OIL—217 tons, Brazil Oiticica Inc, Fortaleza
370 tons, Recife
CELERY SEED—174 bgs, Otto Gerdau, Bombay
262 bgs, Fritzsche Bros, Bombay
CELLULOSE EXTRACT—1,028 bgs, A L Trask Co, Oslo
CERIUM OXIDE—18 dms, Vitro Chemical Co, Havre
CETYL ALCOHOL—112 bgs, Orbis Products Corp, Liverpool
CHLORINATED RUBBER—700 bgs, C M C Chemicals Inc, Liverpool
CINNAMON QUILLS—90 bls, Delano Corp of America, Colombo
75 bls, Max Van Pels, Colombo
51 bls, Frizsche Bros, Colombo
150 bls, Colombo
CITRON OIL—5 cs, Messina
CITRONELLA OIL—80 dms, L A Champon & Co, Keelung
225 dms, George Uhe Co, Keelung
10 dms, Berje Chemical Products, Buenaventura
CLOVES—30 bgs, Curacao Trading Co, Tamatave
100 bgs, Max Van Pels, Tamatave
100 bgs, R D Webb & Co, Tamatave
200 bgs, National City Bank, Tamatave
300 bgs, L A Champon & Co, Tamatave
600 bgs, M J Colombeck, Tamatave
200 bgs, Fritzsche Bros, Tamatave
200 bgs, Otto Gerdau, Tamatave
100 bgs, A G Dunn, Tamatave
320 bgs, Mincing Trading Corp, Tamatave
200 bgs, Ungerer & Co, Tamatave
1,250 bgs, Tamatave
CLOVE OIL—45 dms, Magnus Mabee & Reynard, Tamatave
9 dms, Givaudan Corp, Tamatave
21 dms, L A Champon & Co, Tamatave
55 dms, Tamatave
24 dms, Zanzibar
COCO OIL—530 tons, National City Bank, Cebu
75 tons, Zamboanga
COMFREY LEAVES—12 bls, S B Penick & Co, Rijeka
COMFREY ROOT—17 bls, S B Penick & Co, Rijeka
CONCRETE, IRIS—1 cs, Charabot & Co, Marseille
COPAL GUM—98 bgs, O G Innes Corp, Singapore
224 bkts, O G Innes Corp, Singapore
CORN OIL—200 bgs, Impex Agricultural Corp, Rijeka
1,680 bgs, Rotterdam
CUBE [illegible]5 bgs, Foreign Domestic Distributors, Callao
CUTTLEFISH BONE—100 cs, Morgan Guaranty Trust Co, Yokohama
20 cs, Kobe
80 cs, Aden
DAMMAR GUM—70 bgs, O G Innes Corp, Singapore
50 cs, O G Innes Corp, Bangkok
DEGRAS—25 dms, International Packers Ltd, Brisbane
73 dms, Robinson Wagner Co, Brisbane
108 dms, Olympic Shipping Co, Antwerp
DEXTRIN—1,165 bgs, Manufacturers Trust Co, Rotterdam
2,500 bgs, Morningstar Paisley Inc, Rotterdam
500 bgs, Stein Hall & Co, Rotterdam
400 bgs, Bestick Adhesives, Rotterdam
700 bgs, Rotterdam
DIBUTYL TIN OXIDE—10 dms, Argus Chemical Co, Kobe
30 dms, Advance International Ltd, Kobe
CIS-DICHLOROETHYLENE—1 dm, Chemical Manufacturing Co, Liverpool
DIPHENYL CARBOXYLIC ACID—19 dms, Toms River Chemical Corp, Rotterdam
DOGWOOD BARK—340 bgs, L D Pinkham Co, Kingston
DUBOISIA MYOPOROIDES LEAVES—36 bls, A W Fenton & Co, Sydney
DYES, COALTAR—23 dms, H Bruckmann & Lorbacher, Hamburg
80 dms, Orlex Dyes & Chemical Corp, Hamburg
100 dms, Toms River Chemical Corp, Rotterdam
EUCALYPTUS LEAVES—40 bls, Leixoes
EUCALYPTUS OIL—6 dms, Mombasa
FISHLIVER OIL—3 dms, Arista Oil Products Corp, Yokohama
FUEL OIL—103,552 bbls, Asiatic Petroleum Corp, Punta Cardon
233,369 bbls, Hess Inc, Punta Cardon
131,149 bbls, Metropolitan Petroleum Corp, Punta Cardon
333,501 bbls, Humble Oil Co, Caripito
240,867 bbls, Humble Oil Co, Aruba
132,546 bbls, Signal Oil & Gas Co, Aruba
GALL—3 cks, Wilson & Co, Auckland
GELATIN—20 dms, D H Burdett, Avonmouth
448 cs, Davis Gelatine Inc, Sydney
300 bgs, King Shipping Co, Gothenburg
200 bgs, T M Duche & Sons, Copenhagen
170 dms, D H Burdett, Liverpool
223 bgs, Antwerp
100 cks, Havre
GERANIUM OIL—5 dms, National City Bank, Tamatave
13 dms, J Manheimer, Tamatave
2 dms, Antoine Chiris Co, Tamatave
5 dms, Djibouti
GHATTI GUM—35 bgs, Nehls & O'Connell, Bombay
55 bgs, Morningstar Paisley Inc, Bombay
GINGER—112 bgs, K H Landes & Co, Kingston
56 bgs, Van Loan & Co, Kingston
GLUE—300 bgs, Jung Forwarding Co, Liverpool
GLUESTOCK—272 bgs, Eastman Kodak Co, Liverpool
GRAPHITE—250 bgs, Joseph Dixon Crucible Co, Tamatave
1,750 bgs, C Pettinos, Tamatave
1,550 bgs, Asbury Graphite Mills, Tamatave
250 bgs, National City Bank, Tamatave
250 bgs, Bankers Trust Co, Tamatave
GUAR GUM—400 bgs, T M Duche & Sons, Rotterdam
GYPSUM—600 bgs, C B Chrystal Co, Liverpool
GYPSUM, CRUDE—15,837 tons, National Gypsum Co, Halifax
10,037 tons, U S Gypsum Co, Hantsport
HEMATOXYLIN—3 dms, American Dyewood Co, Glasgow
HOOF & HORNMEAL—730 bgs, Manufacturers Trust Co, Recife
HYDROFLUORIC ACID—25 dms, Liverpool
IRON CARBONYL—60 dms, H Bruckmann & Lorbacher, Rotterdam
IRON OXIDE—100 bgs, Hudson Shipping Co, Oslo
KARAYA GUM—373 bgs, Colony Import & Export Corp, Bombay
124 bgs, S B Penick & Co, Bombay
307 bgs, Block Drug Co, Bombay
KELPMEAL—1,200 bgs, Norwegian Export Import Co, Bergen
LACTIC ACID—50 dms, A Millner Co, Liverpool
LACTOSE—60 dms, Universe Overseas Corp, Antwerp
200 bgs, Rotterdam
LAVANDIN OIL—23 cks, Tombarel Products Co, Cannes
10 dms, Charabot & Co, Marseille
10 dms, Marseille
LEAD ACETATE—4 cks, Aceto Chemical Co, Liverpool
LEMON OIL—4 dms, International Flavors & Fragrances Inc, Vera Cruz
LITHARGE—184 dms, Eagle Picher Co, Tampico
LIVERMEAL—400 bgs, H S C Trading Co, Montevideo
LOCUST BEAN GUM—200 bgs, P A Dunkel, Rotterdam
600 bgs, T M Duche & Sons, Rotterdam
200 bgs, Lisbon
LOGWOOD EXTRACT—195 dms, American Dyewood Co, Kingston
2,6-LUTIDINE—2 dms, Van Oppen & Co, Avonmouth
MACE—75 cs, J F Frank, Singapore
84 cs, Foreign & Domestic Sales Corp, Singapore
MARJORAM—80 bgs, Foreign Domestic Distributors, Callao
MELAMINE—440 bgs, Yokohama
MENTHOL—30 cs, Balfour Guthrie, Keelung
10 cs, Fleischman Burd & Co, Keelung
40 cs, Lo Curto & Funk, Keelung
100 cs, J Manheimer, Kobe
MERCURY—40 flks, Lo Curto & Funk, Tampico
MONOSODIUM GLUTAMATE — 200 bgs, E S Thomas & Co, Rotterdam
MONTAN WAX—200 bgs, Frank B Ross, Hamburg
50 bgs, Rotterdam
MYROBALANS EXTRACT—360 bgs, Barkey Importing Co, Liverpool
NAPHTHALENE—333 bgs, Witco Chemical Co, Avonmouth
224 bgs, J N Forker, Avonmouth
556 bgs, Gallard Schlesinger, Antwerp
849 bgs, Witco Chemical Co, Liverpool
1,739 bgs, J N Forker, Liverpool
80 bgs, Koppers Co, Liverpool
1,340 bgs, Toms River Chemical Corp, Rotterdam
9,071 bgs, Rotterdam
NAPHTHENIC ACID—136 dms, Imperial Oil Ltd, Barranquilla
NUTMEG—42 bgs, J H Elton, Singapore
60 bgs, California Commodities Corp, Singapore
63 bgs, Magna Enterprises, Singapore
OCOTEA CYMBARUM OIL—72 dms, Stein Hall & Co, Itajai
23 dms, Martin Baer & Co, Itajai
OITICICA OIL—300 tons, Brazil Oiticica Inc, Fortaleza
200 tons, Murray Oil Products Co, Fortaleza
OLIVE OIL—140 dms, National City Bank, Seville
48 dms, Chase Manhattan Bank, Seville
192 dms, Bank of America, Seville
OURICURY WAX—66 bgs, Marine Midland Trust Co, Salvador
119 bgs, Meadow Brook Bank, Salvador
OXGALL—1 dm, Van Gelder Fanto Corp, Sydney
PALM OIL—620 tons, Belawan Deli
PAPAIN—4 bbls, Salentine & Co, Mombasa
27 cs, Rohner Gehrig, Mombasa
34 cs, Bemo Shipping Co, Mombasa
PAPRIKA—150 bgs, Casablanca
PEPPER, BLACK—210 bgs, Macalbert Co, Singapore
70 bgs, Bank of America, Singapore
140 bgs, Kellys America Ltd, Singapore
560 bgs, C M Van Sillevoldt, Singapore
140 bgs, C Czarinkow, Singapore
420 bgs, California Commodities Corp, Singapore
320 bgs, Ludwig Mueller, Singapore
140 bgs, Reliable Mercantile Corp, Singapore
140 bgs, Internatio Rotterdam, Singapore
140 bgs, M J Golombeck, Singapore
80 bgs, Curacao Trading Co, Singapore
70 bgs, J H Elton, Singapore
1,190 bgs, A G Dunn, Singapore
280 bgs, Atlanta Textile Corp, Singapore
420 bgs, Mutual Spice Co, Singapore
420 bgs, Singapore
PEPPER, RED—80 bgs, K H Landes & Co, Kobe
100 bgs, M J Golombeck, Kobe
500 bgs, Louis Furth, Yokohama
100 bgs, California Commodities Corp, Yokohama
100 bgs, M J Golombeck, Yokohama
140 bgs, Hismoco American Co, Moji
200 bgs, C M Van Sillevoldt, Yokohama
b[illegible]e
PEPPER, WHITE—60 bgs, Mincing Trading Corp, Singapore
120 bgs, M J Golombeck, Singapore
70 bgs, A G Dunn, Singapore
30 bgs, R J Spitz, Singapore
70 bgs, Ludwig Mueller, Singapore
280 bgs, Singapore
PETROLEUM, CRUDE—229,204 bbls, California Oil Co, Sidon
80,000 bbls, California Oil Co, Punta de Palmas
a-PICOLINE—25 dms, International Chemical Corp, Manchester
105 dms, Rotterdam
PIMENTO LEAF OIL—1 dm, Fritzsche Bros, Kingston
POLYVINYL ALCOHOL—1,575 bgs, Kobe
POPPYSEED—100 bgs, J H Elton, Rotterdam
100 bgs, Levy & Levis Co, Rotterdam
100 bgs, Biddle Purchasing Co, Rotterdam
200 bgs, M J Golombeck, Rotterdam
POTASSIUM CYANIDE—200 dms, Chemical Manufacturing Co, Liverpool
POTASSIUM FERROCYANIDE—600 bgs, Filo Color & Chemical Corp, Rotterdam
POTASSIUM METABISULFITE—4 cs, A Gusmer, Liverpool
POTATO STARCH—1,200 bgs, Morningstar Paisley Inc, Copenhagen
PYRETHRUM EXTRACT—26 dms, Prentiss Drug & Chemical Co, Mombasa
21 dms, World Chemical Corp, Mombasa
PYRETHRUM FLOWERS—220 bls, P R Petry, Guayaquil
PYRIDINE—25 dms, Van Oppen & Co, Avonmouth
PYRITES—458 cks, American Metal Climax, Leixoes
QUINIDINE SULFATE—20 dms, Lo Curto & Funk, Bremen
QUININE SULFATE— 18 dms, Lo Curto & Funk, Hamburg
QUINOLINE—30 dms, B L Lemke & Co, Rotterdam
RARE EARTH FLUORIDE—6 bbls, Ronson Metals Corp, Bremerhaven
ROSEMARY LEAVES—100 bls, Leixoes
RUTILE SAND—893 bgs, Lo Curto & Funk, Newcastle
RUTIN—13 cks, Chas L Huisking & Co, Melbourne
SABADELLIA SEED—185 bgs, Prentiss Drug & Chemical Co, La Guaira
SAFFLOWER—35 bgs, F D Keller & Son, Vera Cruz
SAGE LEAVES—400 bls, Rijeka
SKIPJACKLIVER OIL—25 dms, Arista Oil Products Co, Yokohama
SANDALWOOD OIL—9 cs, International Flavors & Fragrances Inc, Cochin
2 cs, Florasynth Lab, Cochin
SEAWEED EXTRACT—10 cks, Nehls & O'Connell, Copenhagen
SESAME SEED—600 bgs, A A Sayia, Corinto
1,334 bgs, Independent Halvah & Candies, Corinto
500 bgs, International Commodities Corp, Corinto
SESAME SEED, HULLED—750 bgs, Louis Furth, Corinto
600 bgs, Archibald & Kendall, Corinto
700 bgs, A A Sayia, Corinto
300 bgs, R J Spitz, San Juan del Sur
100 bgs, Biddle Purchasing Co, San Juan del Sur
SHELLAC—45 bgs, F H Paul & Stein Bros, Hamburg
SODA, CAUSTIC—486 dms, B T Chemco Inc, Gothenburg
SODIUM ALGINATE—40 dms, Stein Hall & Co, Glasgow
SODIUM CAPRYLATE—1 dm, Chemimpex, Liverpool
SODIUM CYANIDE—250 dms, Chemical Manufacturing Co, Liverpool
100 dms, Ugine Industries, Havre
SODIUM CYCLAMATE—40 dms, Foster T Smith, Yokohama
SODIUM FERROCYANIDE—280 bgs, Rotterdam
SODIUM PERBORATE—498 bgs, Block Drug Co, Hamburg
SODIUM SILICOFLUORIDE—300 bgs, Riches Nelson, Rotterdam
SPERM OIL—600 tons, Archer Daniels Midland Co, Tierra Colorada
300 tons, Morgan Guaranty Trust Co, Tierra Colorada
300 tons, Toshoku Ltd, Yokohama
904 tons, Morgan Guaranty Trust Co, Pisco
SULFANILAMIDE—40 dms, Lo Curto & Funk, Liverpool
TALC—16,500 bgs, Charles Mathieu, Genoa
TAPIOCA FLOUR—444 bgs, Stein Hall & Co, Itajai
7,728 bgs, Morningstar Paisley Inc, Kohsichang
10,657 bgs, Stein Hall & Co, Kohsichang
8,385 bgs, Tapioca Associates, Kohsichang
112 bgs, G H Maus, Kohsichang
1,200 bgs, Poons Co, Kohsichang
TETRA ALKYL THIOPYROPHOSFATE—21 cans, Plant Products Corp, Rotterdam
TURMERIC—60 bgs, Magnus Mabee & Reynard, Kingston
158 bgs, S B Penick & Co, Port Au Prince
VANILLA BEANS—12 cs, Madagascar Agencies, Tamatave
87 cs, George Uhe Co, Tamatave
115 cs, J Manheimer, Tamatave
17 cs, Frank Tea & Spice Co, Tamatave
126 cs, Chase Manhattan Bank, Tamatave
137 cs, Dammann & Co, Tamatave
163 cs, F Huber & Co, Tamatave
168 cs, Gillespie & Co, Tamatave
352 cs, Morningstar Paisley Inc, Tamatave
71 cs, Tamatave
VEGETABLE OIL—12 dms, Peder Devold Oil Co, Rotterdam
VETIVERT OIL—1 dm, Noville Essential Oil Co, Tamatave
1 dm, Antoine Chiris Co, Tamatave
1 dm, Syn Scientific Lab, Tamatave
1 dm, Polaks Frutal Works, Tamatave
4 dms, Lautier Fils Inc, Tamatave
4 dms, J Manheimer, Tamatave
2 dms, Fritzsche Bros, Port Au Prince
VETIVER ROOT—5 bls, P H Petry, Port Au Prince
WATER CRESS—7 bls, S B Penick & Co, Hamburg
WATTLE BARK—1,063 bls, Bowring & Co, Capetown
WATTLE EXTRACT—664 bgs, Tanimex Corp, Durban
657 bgs, Hammond & Carpenter, Durban
WAX, SYNTHETIC—3,000 bgs, Moore & Munger, Durban
YLANG YLANG OIL—3 dms, Djibouti
ZINC CYANIDE—100 dms, Chemical Manufacturing Co, Liverpool
ZINC OXIDE—200 bgs, Vera Cruz
ZIRCON SAND—991 bgs, Chase Manhattan Bank, Brisbane
804 bgs, Lo Curto & Funk, Newcastle
3,808 bgs, Lo Curto & Funk, Brisbane

Los Angeles

ALUMINUM OXIDE—300 bgs, F D Davis Co, Hamburg
CALCIUM CARBONATE—1,600 bgs, Pluess Staufer, Antwerp
1,200 bgs, H M Royal Inc, Hong Kong
CALCIUM NITRATE—13,000 bgs, Antwerp
CASEIN—1,754 bgs, A J Mills & Co, Auckland
COPRA—200 tons, Procter & Gamble Co, Cagayan de Oro
500 tons, Procter & Gamble Co, Jagna
1,600 tons, Procter & Gamble Co, Cebu
FERROUS SULFATE—1,208 bgs, Kobe
IODINE, CRUDE—20 dms, Yokohama
IRON OXIDE—80 bbls, Los Angeles Chemical Co, Malaga
OLIVE OIL—98 dms, Uddo & Taormina Co, Malaga
PAPRIKA—100 bgs, McClintock Stern Co, Hamburg
PEPPER, RED—100 bgs, Hismoco American Co, Kobe
PEPPER, WHITE—49 bgs, H M Newhall & Co, Singapore
PETROLEUM, CRUDE—330,456 bbls, Richfield Oil Corp, Bandar Mashur
172,661 bbls, Powerline Oil Co, Aruba
466,422 bbls, Union Oil Co, Khrag Island
UREA—17,500 bgs, Antwerp
ZIRCON SAND—2,118 bgs, Frank Samuel & Co, Brisbane
400 bgs, Metal & Thermit Corp, Brisbane
1,002 bgs, Sydney

Philadelphia

ASBESTOS FIBER—1,440 bgs, Chas Kurz & Co, Lourenco Marques
BONE—3,425 bgs, Ossa Products, Buenos Aires
154 tons, Ossa Products, Buenos Aires
FUEL OIL—128,548 bbls, Hess Inc, Puerto La Cruz
106,642 bbls, Texaco Co, Puerto La Cruz
102,264 bbls, Atlantic Refining Co, Aruba
NAPHTHA—151,031 bbls, Texaco Co, Trinidad
PETROLEUM, CRUDE—507,234 bbls, Gulf Oil Corp, Bachaquero
292,102 bbls, Gulf Oil Corp, Bandar Mashur
102,657 bbls, Gulf Oil Corp, Puerto La Cruz
229,169 bbls, Continental Oil Co, Mina Al Ahmadi
117,678 bbls, Continental Oil Co, Maracaibo
297,288 bbls, Mobil Oil Co, Banias
115,644 bbls, Atlantic Refining Co, La Salina
118,478 bbls, Atlantic Refining Co, Punta de Palmas
162,765 bbls, Texaco Co, Puerto La Cruz
PYRETHRUM EXTRACT—11 dms, Mombasa
QUEBRACHO EXTRACT—1,625 bgs, First National Chicago, Buenos Aires
600 bgs, Tanimex Corp, Buenos Aires
SODIUM PEROXIDE—7 cs, Premier Dental Co, Bremen

San Francisco

BONEMEAL—510 tons, Stauffer Chemical Co, Buenos Aires
BRONZE POWDER—6 dms, Schmidt Lithographic Co, Hamburg
40 dms, Wedeman & Godknecht, Liverpool
CALCIUM NITRATE—400 bgs, Bradley & Baker, Amsterdam
10,000 bgs, Atkins Kroll & Co, Antwerp
CALCIUM PHOSFATE, DIBASIC—662 bgs, J H Schroder, Antwerp
CARDAMOMS—15 cs, Roundtree Agencies, Kobe
COPRA CAKE—3,000 bgs, Berger & Plate, Cebu
CREAM OF TARTAR—60 dms, Vivion Chemicals, Genoa
DEXTRIN—100 bgs, Morgan Guaranty Co, Amsterdam
FISHMEAL—10,919 bgs, Marine Midland Trust Co, Arica
10,870 bgs, Marine Midland Trust Co, Callao
4,410 bgs, Arica
GINGER—30 bgs, California Commodities Corp, Cochin
80 bgs, Kellys America Ltd, Cochin
HYDRAZINE HYDRATE—25 cs, E F Drew & Co, Bremen
MARJORAM—80 bls, H M Newhall & Co, Marseille
MINERAL WAX—400 bgs, Hamburg
PEPPER, BLACK—490 bgs, Singapore
POLYVINYL ALCOHOL—850 bgs, Kobe
QUEBRACHO EXTRACT—310 bgs, Barkey Importing Co, Buenos Aires
SHELLAC—50 bgs, Calcutta
SODIUM BICARBONATE—100 bgs, Chemical Manufacturing Co, Liverpool
SODIUM CYANIDE—150 dms, Ugine Industries, Havre
TRICHLOROETHYLENE—50 dms, Chemical Manufacturing Co, Liverpool
ZIRCON SAND—2,020 bgs, Metal & Thermit Corp, Brisbane

Chemical People Get a Pail That's Planned Just for Them

National distribution plans for a newly-designed steel pail, which will mean substantial savings to the chemical, petroleum and paint industries are being told by United States Steel Corporation, Pittsburgh, Pa.

Named the "U.S.S. Taperite Pail" because of its tapered design, the new steel container features a tapered shape and an embossed cover which will cut storing and handling costs. The shape allows empty pails to be nested, reducing storage space by two-thirds. For filled pails, a special embossment in the lug cover allows the bottom of one to fit snugly into the top of the pail beneath it.

Philadelphia Chemists Set Golf Date

Chemical Club of Philadelphia will hold a dinner and golf outing tomorrow (April 18), at the Llanerch Country Club. Reservations may be made with A. Carter Fergusson, Alex C. Fergusson Company, 44 E. Oregon Avenue, Philadelphia 48. Dinner is $5.50.

Ionics Charges Infringement Of Water Desalting Process

Ionics, Inc., Cambridge, Mass., has filed two complaints of infringement of US patents covering its electric membrane processes for desalting water and other solutions.

American Machine & Foundry Company was named in a complaint filed March 28 in the US District Court of the District of New Jersey. The four patents issued to Ionics and referenced in the complaint are said to cover electric membranes, their commercial manufacture and use in electrodialysis systems and other features involved in the operation of electrodialysis systems.

Aqua-Chem, Inc., formerly Cleaver-Brooks Special Products, Inc., of Waukesha, Wis., was named in a second complaint, filed March 29 in the Eastern Wisconsin District Court, Milwaukee, Wis. Five Ionics patents were referenced in this complaint.

Polyformaldehyde Battle

—*Continued from page 3*

of matter (crystalline polyformaldehyde) and processes for making the material.

Celanese contends that "Celcon's" chemical structure is "different from that of any other material." This structure, it says, "is carefully ordered in the specially process developed by Celanese."

The Celanese patent (No. 2951059) is described as a vapor-phase polymerization of trioxane.

The company, seeing a 200-million-pound market for polyformaldehydes by 1970, said in February it plans to build a 20-million-pound "Celcon" plant at Bishop, Tex. The Celanese resin is now available from pilot facilities at Clarkwood, Tex.

Meanwhile, waiting on the sidelines are these interested parties:

Heyden Newport Chemical Corporation, which definitely expects to have a polyformaldehyde pilot plant in operation "sometime next year."

Borden Chemical Company, with some 230 million pounds of yearly formaldehyde capacity, which is saying nothing for the moment.

Commercial Solvents Corporation (70 million pounds of formaldehyde capacity), which is also keeping mum.

Reichhold Chemicals, Inc. (plus-180 million pounds of annual formaldehyde capacity), which is looking carefully at polyformaldehydes, but has no statement to make on the subject.

Overseas, Badische Anilin-u. Sodafabrik in Germany is reported to be on the verge of entering the acetal resin field via a British patent on polymeric formaldehydes.

Farbenbariken Bayer AG is also active, as are Farbwerke Hoechst AG, Imperial Chemical Industries, Ltd., Montecatini, and Cie. de Sait-Gobain. Polyformaldehydes are likewise causing a stir in Japan and the Netherlands.

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- 3,3'-DIHYDROXYBENZIDINE
- 3,5-DIHYDROXYPHENYLGLYCINE
- 3,4-DIHYDROXYPHENYLSERINE
- 2,4-DIHYDROXYPYRIDINE
- 2,6-DIHYDROXYPYRIDINE
- 3,5-DIHYDROXYPYRIDINE
- 2,4-DIHYDROXYTHIAZOLE
- DIIODOHYDROXYPROPANE
- DIIODOLECITHIN
- 1,2-DIMERCAPTOPROPANE
- 2,3-DIMERCAPTOPROPIONIC ACID
- 3,4-DIMETHYLBENZOIC ACID
- DIMETHYLCARBAMYL CHLORIDE
- 2,2-DIMETHYLETHYLENEIMINE
- 1,1-DIMETHYLETHYLENE OXIDE
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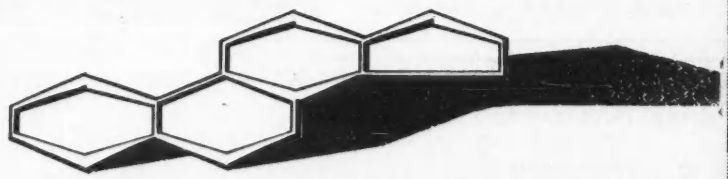

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Essential Oils. Aromatics

Several minor price reductions among the aromatic chemicals and a rather substantial increase in the price of the various thymes were reported last week. Puerto Rican bay, 50-55 percent material also advanced. This material, which has been firm for some time, advanced 75 cents per pound. Red thyme went up $1.35 per pound, white thyme went up $1.40 per pound and white technical went up 40 cents per pound. Celery seed dropped 50 cents per pound. The following are the aromatics reductions: coumarin, 30 cents per pound; hydroxycitronellal, 5 cents per pound; indole, 10 cents per pound; linaloe, 15 cents per pound; methyl heptin carbonate, 50 cents per pound, and methyl salicylate, ½ cent per pound.

A scientist has applied to the National Institutes of Health for money to run studies on the concentrates used in soft drinks flavored with lime, ginger, cola and coffee.

Dr. Frederick Homburger, director of the non-profit Bio-Research Institute, Cambridge, Mass., said last week that he would like to test these flavors to see if they contain cancer-causing safrol or any other carcinogenic agents.

Dr. Homburger delivered a report to the annual meeting of the Association of American Societies for Experimental Biology that pointed out how rats could get cancer if their diet contained one percent of safrol for periods of time from six months to a year.

In December, 1960, the Food & Drug Administration ordered manufacturers to stop putting oil of sassafras and safrol in food products.

A company in Egypt is interested in having a citrus juice plant installed, with capacity to process 1,700 tons of oranges and lemons a season.

Bids are invited by the Egyptian Region of the United Arab Republic to provide and install machinery and equipment required for a complete citrus fruit juice plant.

Bids should be submitted to The Societe Fonciere du Domaine de Cheikh-Fadl SAE, 8 Talaat Harb Street, Cairo, Egypt.

An outline of the project is available on loan from the Trade Development Division, Bureau of Foreign Commerce, US Department of Commerce, Washington 25, D. C.

Price Trends

Advanced

Bay, Puerto Rican 50-55 percent, 75c. per lb.
Thyme, red, $1.35 per lb.
white, $1.40 per lb.
white, technical, 40c. per lb.

Reduced

Celery seed, 50c. per lb.
Coumarin, 30c. per lb.
Hydroxycitronellal, 5c. per lb.
Indole, 10c. per lb.
Linaloe, 15c. per lb.
Methyl heptin carbonate, 50c. per lb.
Methyl salicylate, ½c. per lb.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	April 15, 1960
143.98	143.75	144.06	146.91

For Current Prices see page 9

Essential Oils

Bay—Indications are that the market for Puerto Rican 50-55 percent material, is firm. From its previous low price, $3.25 per pound, it rose to an even $4 per pound.

From the standpoint of production, it might interest the readers to know that principal harvesting seasons are between September and December, although small accounts of oil are produced throughout the year.

The bay tree grows on the windward side of Dominica in the West Indies where it is usually humid. Trees grow at altitudes ranging from sea level to some 2,000 feet. The branches of the trees are either broken off or cut off with machetes.

Then the material is left to dry for a few days near the distillation places so that it will loose its moisture content and thereby be more easily distilled.

Most of the distilleries are primitive. The smaller ones hold only about 250 pounds of leaves. The larger distilleries can accommodate 800 to 2,000 pounds of leaves.

Stills are usually made of copper or sheeted iron. Leaves are put over a wooden grid. The still is heated with open fire which burns wood from the tropical forests of the island.

After the leaves have given up their oil, they are used for mulching lime trees.

As a rule, the phenol content of bay oil in Dominica ranges between 50 and 60 percent. It may run as high as 64 percent, but lots of oil that are this high in phenol are rare and in limited quantity.

Celery Seed—A price drop was noted. From its previous price, $12 per pound, celery seed in bottles has dropped to $11.50 per pound.

The oil is steam-distilled from the fruits or seeds of either wild or cultivated Apium Graveolens, which is cultivated in France, India, Holland, Hungary, China and in the United States.

Annual production of the oil is estimated to be between 10 and 15 tons.

Linaloe—The spot price of Mexican linaloe wood oil dropped from $2.75 per pound to $2.60 per pound.

Generally speaking, the oil from Mexico is in a depressed economic condition. According to the OPD 1961 Hi-Low Chemical Price Issue, the price has fluctuated during the past nine years, but the trend has been basically downward.

According to Perfume and Flavor Materials of Natural Origin, by Steffen Arctander (see book review on Editorial Page), the reasons for Mexican linaloe's dim future are as follows:

- Persistent adulteration.
- Competition from Brazilian and Peruvian bois de rose and Formosan Ho leaf oil.
- Rising production of the synthetic linalool.
- Low yields of oil from primitive stills.

Neroli—It is reported that only limited quantities of French material will be available this year because of the high cost of production.

Rose—We are herewith revising our price listings for Turkish material. It has formerly been reported as natural, ranging between $560 and $750 per pound.

We have been informed by the principal privately-owned company there that the otto is now selling for between $600 and $700 per pound. The absolute sells for approximately $145 per pound.

No statistics are available as to the production of the state-owned cooperatives, but it is known that the privately-owned company anticipates producing some 500 kilos of absolute during May-June of this year.

No change has been reported in the price of Bulgarian material which still lists for $1,152 per pound.

Thyme—Substantial advances in price have been reported.

Red material has advanced from $2 per pound to $2.35 per pound, white material has advanced from $2.20 per pound to $3.60 per pound and technical white material has advanced from 40c. per pound to 80c. per pound.

Aromatic Chemicals

Coumarin—From its previous price, $3.30 per pound, coumarin has dropped to an even $3 per pound.

Coumarin is not used any more in vanilla but it still is used in such perfumes as clover, new-mown hay and lavender.

It occurs naturally in Peru balsam, tonka beans, oil of cassia, melilot, orchid, lavender and such plants as woodruff, liatris and vernal grass.

The odor is sweet and resembles new-mown hay with a hint of chocolate.

Hydroxycitronellal—A slight reduction was noted. From the previous $5.70 per pound, the price went down to $5.65 per pound.

Indole—This item declined slightly in price—from $13.75 per pound to $13.65 per pound.

Methyl Heptin Carbonate—From its previous low, $27.75 per pound this item dropped to $27.25 per pound.

Methyl Salicylate—From its previous listing, 62½c. per pound, methyl salicylate came down to 62c. per pound.

Vanillin—Imports of vanillin for all of calendar year 1960 totaled 397,355 pounds. The value was $1,173,548 and the duty, $234,894.

Shippers were: Canada, 377,525 pounds,

valued at $1,044,510 and dutied at $234,894; The Netherlands, 13,216 pounds, valued at $84,842 and dutied at $16,516; Switzerland, 6,614 pounds, valued at $44,196 and dutied at $8,595.

Imports of vanillin in February 1961 totaled 52,605 pounds, valued at $164,135 and dutied at $32,763. Sources were Canada, 50,400 pounds, valued at $149,400 and dutied at $29,897 and The Netherlands, the remainder. All of this material was marked for immediate consumption.

These statistics are reported by the Foreign Trade & Economics Operations Division of the Bureau of Census, US Department of Commerce.

Seeds and Spices

Allspice — Jamaican material has dropped from its previous price, 72c. per pound, to 70c. per pound.

Basil—Coarse California material has dropped in price from $1.20 per pound to $1.18 per pound. French material also has dropped in price. From its previous level, 80c. per pound, it has gone down to 78c.

Cardamoms — Guatemala decorticated material has dropped in price from $2.68 per pound to $2.60 per pound. Other types such as Guatemala green, Alleppey Green and Alleppey decorticated, also have dropped in price.

Cinnamon—The No. 0000 material has come down from 72c. per pound to 70c. per pound.

Mace—Siauw No. 1 fancy material has dropped in price from $1.50 per pound to $1.45 per pound. Siauw No. 1 whole and Siauw No. 2 siftings also have come down in price.

Pepper—Both Malabar and Lampong black have dropped in price. From their previous 47c. per pound price, they have both dropped to 46c. per pound.

Muntok white, also is lower. From its previous price, 58c. per pound, it has dropped to 55c. per pound.

Trade sources report that the following shipments of pepper are due later on this month: The SS Baron Belhaven, April 20, carrying 112 tons; the SS Jaladurga, April 22, carrying 250 tons; the SS Arna, due April 25, carrying 120 tons.

It was said that these ships had originally expected to be carrying substantially larger quantities of pepper than they are.

Pepper Consumption: 1960*

United States	17,000
Canada	1,300
South America	5,000
United Kingdom	3,000
West Europe	7,000
Communist Countries (Excluding China)	6,000
Middle East and Africa	5,000
India and Pakistan	11,000
Far East (Excluding China)	1,500
China	1,500
Australia, New Zealand, etc.	800
Total	59,100

* In terms of tons (estimated).

Vanilla Beans—Dealers report no substantial changes in the market since the previous issue.

Prices are steady and sales normal.

Essential Oils Briefs

COMMITTEE APPOINTED: The board of governors of the Flavoring Extract Manufacturers' Association of the US has appointed the following members of the association to be placed on the nominating committee:

Leo Green of Fred Fear & Co., Brooklyn, N.Y., chairman; G. F. Mayer of Warner-Jenkinson Manufacturing Company, St. Louis, Mo., and William T. Miller of the Royal Crown Cola Company, Columbus, Ga.

ALLISON JOINS R. D. WEBB: Edwin G. Allison has joined R. D. Webb & Co., Inc., as sales representative for New York City, Westchester County and New Jersey. Mr. Allison was formerly with S. B. Penick & Co.

Merck Goes to Peru: Its Good for Everyone

—*Continued from page 7*

ing market in that country for chemical intermediate products made in Merck plants in the United States," said the head of the Rahway, N.J., firm.

Touching on the tariff situation, Mr. Connor stated that reform is needed in that quarter.

"Our federal government should adopt some realistic, really reciprocal trade policies so that we can protect American jobs. Under no circumstances do I think a relief check is an adequate substitute for a job," he added.

Taking vitamins as an example of unrealistic US tariff policy, Mr. Connor pointed out that the US tariff rate on vitamins is 10½ percent, whereas the British rate is 33⅓ percent, the French runs up to 20 percent and Japanese import restrictions make is impossoble to sell any American-made vitamins there.

"I believe firmly that our reciprocal trade agreement act should be renewed when it expires next year. But in renewing it I think that we have to provide better safeguards than we now have to make sure that its administration by our government agencies is really reciproval," he said.

Then, challenging the widespread assumption that international operations of American corporations have had an adverse effect on the US "balance of payments," Mr. Connor said:

"Dollars sent from the United States as part of Merck's foreign capital investments totaled $13 million from 1956 through 1960. Dollars coming back to us from sales to our foreign operating subsidiary companies, and dividends and royalties from them, amounted to over $87 million. In terms of any flow of gold or dollars, our experiences have proved to us that the flow to the United States has been very much in its favor as a result of these foreign investments."

ADM Offers Only Bid Accepted for Coconut Oil

General Services Administration last week received four bids for purchase of its latest offering of 13 million pounds of stockpiled coconut oil, but accepted only one for a small portion of the total.

This was the bid of Archer-Daniels-Midland Company, Minneapolis, Minn., which offered 11.04 cents a pound for 908,480 pounds of the oil. None of the other bids was within a range that could be accepted, GSA said.

The sale is part of the regular six-weeks offering of coconut oil stockpiled by the government for an emergency, but now being disposed of as not been needed.

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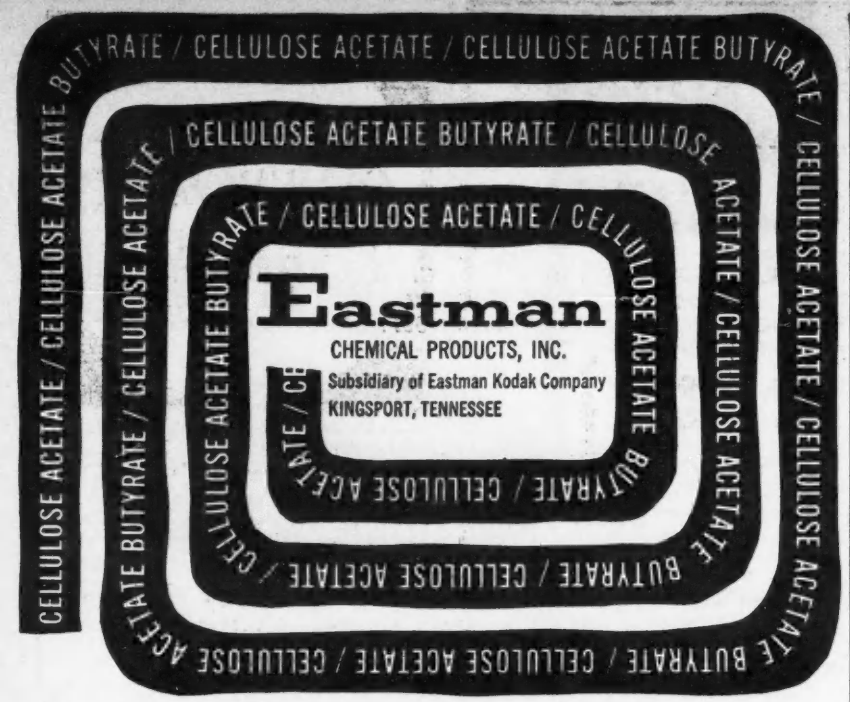
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Coating Materials

Despite the upturn in industrial activity that has been experienced in many quarters of the economy in the past few weeks, coating formulators, particularly paint manufacturers, report business below the levels they had anticipated. Pigments producers find demand from those industries who service the auto makers greatly improved as shipments are well ahead of those make just a few months ago, but lag behind the level of business they expected during the peak paint season.

Cadmium pigments listings are reported to be out of any immediate threat of a price boost on the basis of the recent boost in cadmium metal. Sources report that current listings will probably hold as long as current stocks continue to be worked.

Antimony oxide remained split on its listings as one producer continued to hold out against the industry advance. The 3½ cents per pound discount is felt to be attracting added business for the producer but the percentage of the business influenced by the lower price can not be determined.

The divergent opinions on the supply situation for antimony ore that were reported last week still divide the market. Each side claims ore supplies reflect their announced listing. What effect the lone hold-out will have on the market remains the big question.

Caesin prices were unchanged for week. Buyers dominated the market by their refusal to buy. Their refusal seems to be based on the estimate that the market will continue to decline. Stocks in the Argentine are building up as a result of the reduced interest and the unusually long producing season this year.

French casein was reported offered on the basis of 14¾ cents per pound, ex dock. This would mark the lowest price for imported casein in several years. Basis for the low French offer is said to be the result of an exceptional level of production this year.

In a related move, it was reported last week that the French Ministry of Agriculture will meet shortly with casein interests in France in an effort to decide the support level for their casein.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	April 15, 1960
104.57	104.55	104.55	103.03

For Current Prices see page 9

Prime Pigments

Antimony Oxide—The one hold-out blocking the industry-wide advance of antimony oxide listings continues to stand by his guns by inviting business at 3½c. a pound lower than his competitors. The stand-off on the listings stems from the divergent opinions of the availability of ore supplies on the world-market.

Last week, trade sources reiterated those opinions: one side claims a shortage of ore; the other denies it. The short supply argument contends that ore shipments from mining areas in Africa and Boliva have decreased due to political and weather conditions. That factor plus the withdrawal of Red Chinese ore from European markets has tightened the supply of ores on the market. Large scale ore purchases on the part of Japanese interests has also been a contributing factor in the tight supply situation. The cheapness of Japanese labor is aid to provide an excellent reason for reducing the ore to oxide in that country.

Resisting the trend toward higher listings should attract more business, one producer claims. But just how greater this business might be in a closely guarded secret but apparently lower listings for the oxide have attracted if not new business then an increase over the previous levels.

Cadmium Pigments— The recent 10c. a pound increase that boosted cadmium metal listings to $1.60 a pound will probably not have any immediate effect on pigment listings. That's the report from several pigment producers.

One source reports that cadmium stocks acquired at the old price should hold for several weeks before new purchases will have to be made. At that time an estimate of the current price trends for the metal will be made.

Another producer contacted by OPD reports that no price change is being contemplated at this time. Demand for the cadmium pigments is presently at good levels. A pick up in shipments to industries servicing the auto makers is said to have provided new business for the pigments.

While demand for the pigments has been greatly improved in the past few weeks, sources report that it is still below the levels experienced at this time. Peak paint use usually arrives at this time of the year, but while shipments have increased, they are reported to be lower than anticipated.

Carbon Black—Exports of carbon black skidded 20,000,000 pounds in January, reports the Bureau of the Census. Exports of furnace and channel blacks totaled 40,563,000 pounds, compared to 60,908,000 pounds exported in January, 1960.

The decline in carbon black exports had been predicted for several years running by trade sources. The predictions failed to run true, however, as exports climbed steadily. The drop in exports takes on an ominous ring this year in light of the carbon black plants that achieved on-stream status in the past 12 months in Western Europe.

Matching the decline in exports was the overall output of the blacks. Production of carbon black was placed at 149.087 million pounds in February or 12.6 percent below February of last year, reports Census.

Also on the down side were carbon black shipments, off 5.3 percent from February 1960. One bright note was the reduction in stocks. During February stocks decreased 687 million pounds. Total stocks maintained at the end of February were still around 277.549 million pounds, well above the levels reported for the same month last year.

Lead Pigments—Lead pigments demand continues at a satisfactory level, reports trade sources. Sustained by an overall improvement of demand for paint products and materials, supplies and demand are reported to be in good balance. No change in the listings for the pigments is reported.

Titanium Dioxide — Paper production continues to sustain the titanium dioxide market at good levels. Paint sources, however, should be playing an increasingly active role in the weeks ahead. Listings are reported to be firmly established at their old levels, while supplies are adequate for all needs.

Zinc Oxide—Market continues along at its old pace. Listings, supplies and demand are all unchanged from previous weeks.

Lacquer Materials

Cellulose Butyrate/Acetate—The stable market conditions operating in this market leave little to be reported. Demand from major sources rarely deviates from the norm and supplies are seldom reported in any difficulty. Prices are at their long-standing levels, unchanged.

Nitrocellulose — Market for nitrocellulose is reported to be routine in most respects. With a general increase in overall industrial activity in the air, some increase should be felt in nitrocellulose markets. Listings are reported to be unchanged; supplies adequate.

Plasticizers—Demand for the plasticizers, particularly the phthalate esters, is reported to be at good levels. Shortages that plagued producers over the past 12 months do not seem as severe now, sources report. Naphthalene, while still not plentiful, is said to be available in sufficient quantities to keep phthalic anhydride flowing to most customers.

Listings for the phthalate esters went into the second quarter unchanged with one exception. Possibility of a stabilized market in regard to prices and supplies seems likely.

Miscellaneous

Animal Glue—Census reports production of animal glue totaled 8.585 million pounds in February, as against 8.999 million pounds in the previous month. Shipments of animal glue decreased from 8.902

Coating Materials

million pounds in January to 7.337 million pounds the following month. Stocks of animal glue held basically unchanged from the previous month, Census reports.

Casein—Casein continues to be a buyers market. Prices for Argentine, Polish and New Zealand casein are reported to be unchanged from previous week. Production in the Argentine helped by weather conditions is reported still in progress, well past the usual season's end in February. Knowledge of the added production, plus the high level of stocks is said to be holding back buyers who feel that lower prices may be in offering. Sellers however, feel quite the opposite. They believe that prices are almost at rock-bottom.

An offer of French casein that would deliver material ex dock for 14¾c. a pound was reported last week. This would make French casein the lowest price imported casein on the market.

The lower price would have to overcome the reputation for poor quality control for French casein, before it could make inroads in the market. It is reported that the French Ministry of Agriculture with meet with French casein producers and sources shortly to decide on a subsidy for French casein. The outcome of those discussions might effect quotation for casein since the French anticipate a very large production this year.

Naval Stores

Pine Gum—USDA weekly naval stores report ended April 7, indicates that sales of pine gum jumped 20 percent for the week. Total sales were reported at 8,373 drums equivalents, compared to 6,464 during the previous week.

Sales f.o.b. plants were reported at: $13.60 for WW; $12.75 for WG; N. $13.45 and M and below, $12.20. Bag sales were at: $12.78 and M and below, $12.20.

Turpentine sales were up from a week earlier. Total turpentine sales were reported at 34,000 gallons compared to 18,000 for the previous week. The average price was reported in the range of 45c. to 52½c. per gallon.

ATFA redemption pool took 4,000 gallons of turpentine at 53¼c. per gallon on April 4, reports USDA.

Coating Materials Briefs

AEROSOL PLANT PLANNED: Construction of a $1 million aerosol plant at Medina, Ohio, is scheduled to begin shortly, according to Plasti-Kote, Inc., Cleveland, Ohio. The new plant will have a designed capacity of 50 million cans of spray paint a year and is geared to supply the 50 percent boost in sales Plasti-Kote anticipates in 1961. Plasti-Kote estimates sales of $20 million within the next few years.

CELLOPHANE YIELD INCREASED: Increased-yield versions of six major cellophane types have been developed by E. I. duPont de Nemours & Co., Wilmington, Del. Increases of as much as 19 percent are reported for the new types. The development marks the first real advancement in maximum square-inch-per-pound yield in nearly two decades, according to duPont.

MELAMINE FAMILY GROWS: American Cyanamid Company, New York, has introduced another surface coating resin to its family of melamine resins. "Cymel 255-10," an isobutylated melamine formaldehyde resin, is tailored for white and colord baking enamel formulations.

Cyanamid expects that the new resin will find extensive use in baking enamels for automobiles and household appliances due to its heat and mar resistance and durability. "Cymel 255-10" is the fifth in the series of melamine resins Cyanamid has developed.

POLYETHYLENE IMPROVED: A new improved polyethylene film resin with 40 percent greater impact strength than general purpose resins has been introduced by Monsanto Chemical Company, St. Louis, Mo. Designated "MPE 706X," the new resin is reported to permit the use of lighter gauges to meet the toughness requirements of many specific applications, according to Monsanto.

Canadian Chemical Makers

—*Continued from page 7*

percent. The United States rates average about the same, though some very important chemicals such as styrene, ethylene dichloride, formaldehyde, phenol etc., are excluded from the United States market by tariffs ranging from 35 percent to 110 percent.

"The average Canadian rate, considering end-use exemption and export drawback, is about 8 percent—with no rates over 20 percent.

"The European Economic Community rate for plastics is about 21 percent, the United States rate is about 39 percent, and the average Canadian rate is about 4 percent."

This obsolete and ineffective tariff structure, he maintained, has compelled Canada to buy from abroad a lot of things she should buy at home (chemicals, for instance).

While there is a growing awareness that the dominion's tariffs and customs policies need moderizing, Mr. Smithers said, the Canadian government fears retaliation if corrective measures are taken.

Many point out that the most serious retaliation would have to come from the United States, the Dow executive commented. However, he urged the US to show understanding toward Canada's moves to solve its current economic problems.

For, he asserted, in the end it can only be to the advantage of the United States.

"Canada is the best customer of the United States, and the United States owns much of Canada's industry. A healthy Canadian economy is therefore of interest to the United States," he explained.

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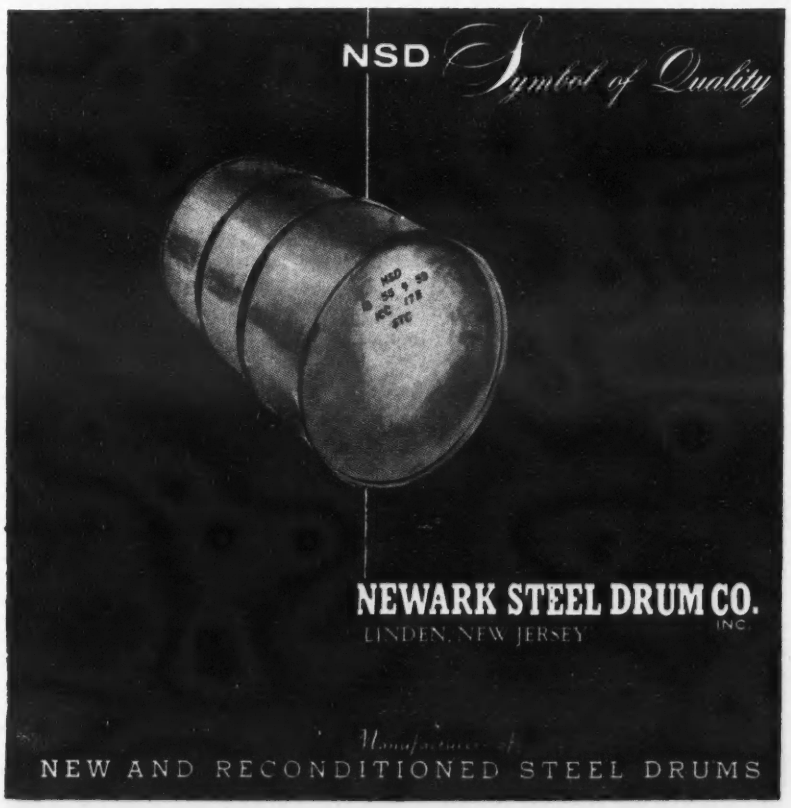

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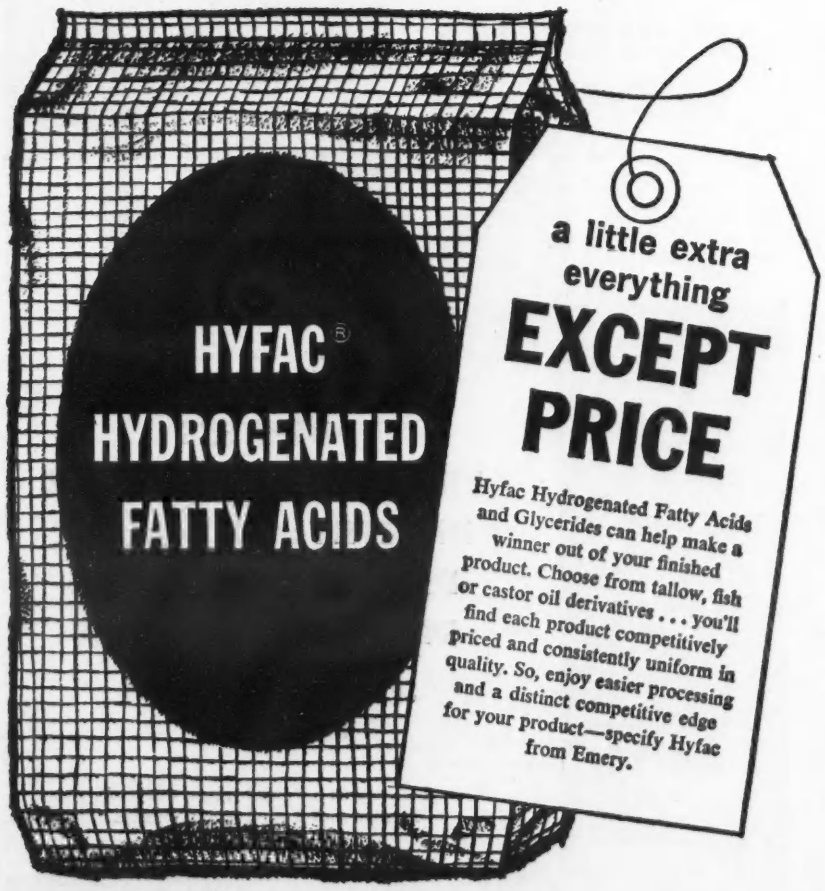
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Oils, Fats and Waxes

Edible vegetable oils continued to fluctuate with soybean futures last week. Early advance in soybean oil were not sustained, the market closing ¼ cent lower for the period. Cottonseed oil, however, held firm, chiefly due to limited available supplies of crude, advancing ¼ cent. Corn oil remained firm and unchanged. Peanut oil was easier, off ⅛ cent. Consumers continued to limit purchases of edible oils to prompt needs. Crude coconut oil was stronger with copra, advancing ½ cent per pound, on the Pacific coast, while the New York market was up about ¼ cent. Copra was raised $7.50 per ton for prompt shipment.

Oilmeals were stronger with the sharp advance in soybean meal, which was boosted $6 per ton. Cottonseed, linseed and peanut meals were lifted $1 to $1.50 per ton.

The tallow and grease market became more settled last week. The payment of premiums due to the lack of short covering was eliminated. Prices were steady except for bleachable fancy and extra and choice white grease which declined ⅛ cent. The recent advance of tallow was reflected in oleic, stearic and tallow fatty acids which were advanced ¾ cent per pound, the second boost of ¾ cent in the past fortnight.

Trading in industrial oils lacked snap and was restricted to actual needs, but withdrawals against contracts were in active request for linseed, oiticica, tung and castor oils. Improved demand was noted for crude menhaden oil for domestic and export delivery. Rapeseed oil was stronger and light stocks were raised ½ cent per pound. Crude tall oil was scarcer and lifted ¼ cent per pound for prompt delivery.

Price Trends

Advanced

Coconut oil, crude, Pac. Coast, ½c. per lb.
N. Y., ¼c. per lb.
Copra, $7.50 per ton.
Cottonseed meal, $1 per ton.
Cottonseed oil, crude, ¼c. per lb.
Refd., ¼c per lb.
Lard, cash, ½c. per lb.
Linseed meal, $1 per ton.
Oleic acid, ¾c. per lb.
Peanut meal, $1 per ton.
Rapeseed oil, ½c. per lb.
Soybean meal, $6 per ton.
Stearic acid, ¾c. per lb.
Tall oil, crude, ¼c. per lb.
Tallow fatty acid, ¾c. per lb.

Reduced

Beeswax, crude, 1c. per lb.
Carnauba wax, No. 1 yellow, 4c. to 5c. per lb.
No. 2, refd., 4c. per lb.
No. 3, refd., 2c. per lb.
Cocoa butter, 1c. per lb.
Grease, choice white, ⅛c. per lb.
Olive oil, spot, 5c. per gal.
Ouricury wax, 2c per lb.
Peanut oil, crude, ⅛c. per lb.
Refd., ⅛c. per lb.
Soybean oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Tallow, bleachable, fancy, ⅛c. per lb.
Extra, ⅛c. per lb.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	April 15 1960
111.10	108.37	108.05	114.22

For Current Prices see page 9

Vegetable Oils

Castor—While trading was light, market was unchanged and steady. No. 1 Brazilian was maintained at 17¼c. per pound, tankcars, New York, prompt delivery. Domestic grades were well held at former levels.

A new dwarf-internode castor bean variety named Hale, adapted for production in irrigated areas in the West and Southwest, has been released cooperatively by the Department of Agriculture and the Texas Agricultural Experiment Station.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds	
	Castor Beans	Castor Oil
Last week	....	1,174,000
Previous week	....	280,000
Corresponding week, 1960	97,200	1,584,000
Total this year	....	22,858,000
Corresponding period, 1960	1,599,300	26,694,000

Coconut—Improved tone featured this market, reflecting stronger copra. Crude was advanced to 11¾c. per pound, tankcars, f.o.b. Pacific coast, prompt shipment. At New York market was steadier at 13c., tankcars, prompt delivery.

Corn—Crude was firmer and sold at 17½c. per pound, tankcars, f.o.b. mills. Refined oil was maintained at 21.23c., tankcars, New York basis.

Cottonseed—Active trading featured the futures market on the New York Produce Exchange last week. Price fluctuations were drastic with the movement in soybean futures. Early sharp gains were materially reduced, the market closing about ¼c. higher, except the May delivery. Cash oil was also higher with crude oil. Refined salad was advanced to 17⅜c. to 17½c. per pound, tankcars, New York, prompt delivery.

Crude oil was scarcer and ¼c. higher. Tankcars were nominal at 14⅛c. per pound, in the Valley and Waco and ranged from 14⅜c. to 14½c., in the southeast, as to location.

The Department of Agriculture announced an agreement between the US and Iceland for financing the sale of 344 tons of cottonseed or soybean oil to cost about $100,000 under PL 480, payment to be made in Icelandic currency.

Oiticica—Active demand continued for delivery against existing contracts. New business was restricted to actual needs. Prices were steady ranging from 14c. to 14¼c. per pound, tankcars, New York, prompt delivery, according to seller and quantity. Drums were unchanged at 15½c. to 16c., spot, as to quantity.

Olive—Feature of this market was the steady demand for replacements from European buyers. Italy and Greece were active buyers, while interest from the US was reported slow. Spanish oil remained firm at $53 to $54 per 100 kilos, drums, f.o.b. ports. Tunisian oil was unchanged at $56.50 to $57 per 100 kilos, drums, c. and f. New York, prompt shipment. Demand for oil on spot was quiet and market was slightly lower, ranging from $2.30 to $2.40 per gallon, drums, exwarehouse depending upon quantity.

Peanut—Trading was confined to actual needs. Crude was easy and sold at 14⅞c. per pound, tankcars, f.o.b. mills. Refined oil declined to 18⅛c. tankcars, New York basis.

Rapeseed—This market was strong owing to limited supplies. Tankcars were higher at 17½c. per pound, New York, prompt delivery. Trading was fair, chiefly for actual needs. Drums ranged from 19c. to 19¼c., spot as to quantity.

Soybean—This market fluctuated sharply with beans. Early gains, however, were not maintained. Crude declined ¼c. to 13¼c. per pound, tankcars, f.o.b. Decatur, unrestricted for prompt delivery. Refined salad was lower at 15⅜c. tankcars, New York, prompt delivery.

Stocks of soybeans on farms on April 1 were placed at 72.5 million bushels compared with 141,283,000 bushels, April 1 last year.

Tall—This market was stronger because of the tighter supply situation of crude oil. Offerings were scarcer and raised to 3¼c. per pound, tankcars, f.o.b. works for prompt and later delivery. This was reflected in refined grades which were firm and tended higher.

Tung—Demand was quite active for delivery against former orders. Imported oil was quiet, but steady at 27¼c. per pound, tankcars, New York, prompt delivery. Drums were held at 28¾c. to 29¼c., spot, according to the quantity. The trade awaited with interest the sale of government owned oil scheduled for Tuesday, April 18. CCC will offer 600,000 pounds for export or domestic delivery instead of 200,000 pounds.

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, April 14, follow:

	Sales	High	Low	Close
		Cents per Pound		
May	1,360	16.64	15.76	15.95S
July	1,986	16.76	15.82	16.04S
Sept.	180	15.55	14.95	15.20S
Oct.	86	14.85	14.30	14.57S
Dec.	48	14.50	14.10	14.30 Bid
May, 1962	1	14.40	14.40	13.95 Bid

Total sales and switches, 3,661 contracts.

Miscellaneous

Cocoa Butter—Market was easy and lower, off 1c. Stocks on spot ranged from 53c. to 58c. per pound, according to quantity.

Copra—Market was firmer because of improved buying for European account.

Oils, Fats and Waxes

Prompt shipment advanced to $160 per ton, c.i.f. Pacific coast.

Flaxseed—Bids on cash flaxseed were raised 4c. a bushel to $3.12, spot and to-arrive, basis Minneapolis. Strength reflected more pronounced advances in soybeans futures. Market was edgy after the advances, offers bringing 1c. to 2c. additional premiums. Discount was smaller for non-transit tonnage at the head of the Lakes as first ships began loading.

Fats and Greases

Greases—Trading was fairly active at prevailing quotations as increased offers eliminated premiums recently paid. Yellow grease was sold at 7⅞c. per pound, tankcars and choice white was lower at 9¼c. to 9⅜c., same basis. Offerings continued light.

Lard—This market was steadier and fractionally higher. Cash lard closed at 13½c. per pound, drums, Chicago.

The Department of Agriculture announced lard purchases totaling 58,185,000 pounds at the cost of $9,368,000 up to and including April 6 for relief purposes in the US since the program started in January.

Tallow—Good volume of business was reported for soapmakers account for prompt delivery. Prices were unchanged, except for bleachable fancy and extra which dropped ⅛c. Offerings were light. Bleachable fancy was sold at 8⅜c. per pound, tankcars, delivered; prime was quoted at 8⅛c.; guaranteed fancy sold at 8¾c.; special ranged from 7⅞c. to 8c., and No. 1, 7¾c. with 7⅞c. bid. Guaranteed fancy was also lower at 8⅞c. to 9c., bulk, f.o.b. steamer and drums, 1c. higher, f.a.s.

Cake and Meal

Cottonseed Meal — Market was firmer with soybean and other meals Prices advanced $1 per ton. Trading was moderate. Stocks were light and 41 percent was higher at $56 per ton, sacked, Mississippi Valley, and $60 to $61, in the southeast.

Linseed Meal—Stronger tone pervaded this market as soaring prices for soybean meal caused increased usage of linseed. Prices advanced $1 and trading reached substantial volume. Moderate improvement was also noted in rate of withdrawals against existing balances. Extracted meal, 34 percent protein, was higher at $54 a ton, bulk, in carlots, f.o.b., Minneapolis. Old process expeller meal advanced $1 to $59.50, April-July.

Peanut Meal—Small supplies of meal moved in fair volume for actual needs. Market was firmer. Old process, 45 percent, was higher at $58 per ton, sacked, and solvent, $55, f.o.b. Alabama, Georgia area.

Soybean Meal — Sharp advances were posted in this market, reflecting activity in soybean and meal futures. Government report showing soybean stocks on farms at only slightly more than half of previous year's sparked buying in old crop soybean futures, as well as meal. Crushers met resistance in the advancing market as formula feed manufacturers accelerated switch to other products. Cottonseed meal and linseed meal moved freely into Iowa and other areas, replacing soybean. Prices advanced $6 to $8.50 in all markets. Meal, 44 percent protein, was held at $75.50 a ton, unrestricted, bulk, Decatur, prompt delivery.

Fish Oils

Cod—This market remained unchanged and steady. Offers for shipment were maintained at 7⅛c. to 7¼c. per pound, bulk, f.o.b. Gloucester, Mass. A strike at this port has affected deliveries. Oil on spot was quiet and quoted at 8¼c. to 8½c. per pound, drums, as to quantity.

Menhaden—Buying interest was more active and fair volume of business was noted at prevailing quotations. Crude was firmly held and sold at 6½c. per pound, tankcars, f.o.b. works, prompt delivery. Menhaden fishing was scheduled to start in the Gulf this week and the end of May in the North. Refined grades were unchanged and steady. Light pressed was maintained at 10.30c. per pound, tankcars, New York basis.

Whale—Reports from Oslo stated the eight Norwegian whaling expeditions in the Antarctic area during the close of this season produced 665,880 barrels of whale oil and 74,342 barrels of sperm oil, according to the Norwegian Whaling Association. The combined production amounted to 140,225 barrels compared with 54,715 barrels in the previous season. Arrivals totaled 2,104 tons of sperm oil at New York last week from Peru and Japan.

Fatty Acids

Continued advances in the cost of basic materials resulted in another price boost in animal fatty acids last week, the second in a fortnight. Prices were advanced another ¾c. per pound for oleic, stearic and tallow fatty acids. Oleic acid single distilled was boosted to 16¼c. per pound, tankcars and double, 17¼c. Stearic acid, single distilled was lifted to 17½c. per pound, bags, carlots; double, 18c. and triple, 19¾c. Tallow fatty acid, distilled, 12c. per pound, tankcars and hydrogenated, 16¼c. to 16¾c. carlots, depending upon grade. The advance increased buying interest and a good volume of business was noted before the higher schedule became effective, April 13. There was no change in prices of vegetable oil acids and moderate demand continued for coconut, cottonseed, corn, palm, soybean and other fatty acids.

Waxes, Vegetables

Consuming inquiry improved for carnauba grades, but trading was still restricted to prompt delivery. Offers for shipment from Brazil were limited reflecting the steadier tone of the cruzerio market, especially for Parnahyba. No. 3 Ceara crude was quoted at 60c. to 61c. per pound, spot, as to quantity with Parnahyba 3c. higher. Yellows were easier on spot, declining about 5c. per pound, due to selling pressure. No. 1 yellow was quoted at 82c. to 83c. per pound, on spot and Parnahyba was held at 3c. more.

Crude beeswax was easier and off 1c. to 2c. per pound, while refined grades were steady and unchanged because prices had not followed recent advances in crude. African crude declined 2c. to 52c. to 54c. per pound, as to quantity, with other grades off 1c. per pound. Brazilian and Central American crude were quoted at 56c. and Chilean at 57c., prompt delivery.

Refined ouricury was quiet and lower. Prices dropped to 54c. to 55c. per pound, spot, depending upon quantity. The crude grade was merely nominal around 50c. per pound.

Candelilla wax was steady and held at former levels. Japan wax was also unchanged.

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Synthetic Fibers Pace Russian Chemical Gains

Synthetic fiber output, up to 211,000 metric tons in 1960, appears to have led the chemical industry of the Soviet Union in growth rate. Output in 1959 was 18 percent less, or some 179,000 metric tons.

However, figures for other chemical products in 1960, according to the Soviet statistical central bureau, indicate that the industry's growth rate might be lower than the 10-percent-per-year pace maintained by overall industrial production.

Total industrial production in 1960 grew about 10 percent. Industrial goods rose about 11 percent and consumer goods, around 7 percent. But fertilizer output was only up 7 percent, and sulfuric, about 6 percent.

The following figures represent Soviet chemical and industrial output, according to Soviet figures, for specified years:

	1960	1959
Chemical Products:		
Sulfuric acid (million tons)	5.4	5.1
Fertilizer (million tons)	13.8	12.9
Chemical fibers (thousand tons)	211.0	179.0
Other Industries:		
Coal (Million tons)	513.0	506.5
Coking coal (million tons)	110.0	100.8
Petroleum (million tons)	148.0	129.5
Natural gas (billion cu. meters)	47.0	37.2
Electricity (billion kwh)	292.0	264.0
Iron (million tons)	46.8	43.0
Steel (million tons)	65.3	59.9
Auto tires (million units)	17.2	15.5
Chemical equipment (million new rubles)	224.0	170.0

FDA Stands Ready

—*Continued from page 5*

clusion and whether proper tests are being run.

Officials say these reports will enable them to keep a finger on the situation and give advice to applicants on what work may be going on in the same area by other researchers.

Approximately 3,000 food additives are involved in the extensions granted under the authority of the original law which ran out last March 6, but continued by FDA Commissioner George P. Larrick through use of his administrative discretionary powers.

These are all products that had been in use prior to January 1, 1958, on which test work is in progress.

In announcing the conditions to be met by manufacturers to obtain further time extensions for safety clearance of food additives, Commissioner Larrick pointed out that no extension can be granted unless the substance involved can be shown to present no undue risk to the public health during the extension period.

Requests for extension of time beyond July 1 will be considered if the following information is promtly submitted:

- The specified name or chemical designation of the substance, the use or uses for which it is desired, and the amount and purpose involved in each usage.
- A statement outlining actions taken to determine applicability of the food additives law and estimates of the amount of research work needed to date.

The same criteria will apply to the obtaining of further time extensions under the 1959 law dealing with nematocides, plant regulators, defoliants, and desiccants used in agriculture.

Poland Soon a Sulfur Mart

—*Continued from page 5*

3,000 hectares, with key points near Piaseczno, Machow and Solec.

Near Piaseczno the ore is near the earth's surface, and is capable of being recovered via open-pit methods. The Machow deposit is deeper, but will be richer.

Construction of the first open pit mine in Piaseczno was begun in 1954. In 1961, output of 130,000 tons pure sulfur is expected. At Machow, ten kilometers distant, construction of a refinery combine was begun in 1958. The first stage of this operation has been on stream since December.

Sulfuric acid units now under construction will be in operation soon, and will make 50,000 metric tons of sulfuric acid by the end of the year. Superphosphate output will start at the year's end and reach 200,000 tons per annum in 1962.

By 1965, sulfur output will reach 400,000 tons per year; acid output 400,000 tons, and superphosphate, 600,000 tons. In the course of further expansion and after start-up of mine operations in Machow, total capacity of the combine should be over 1 million tons annually.

Total investment for mines and plants will run to 4.5 billion zlotys (US $750 million). Czechoslovakia has awarded Poland credit worth 100 million rubles, half in plant equipment for the sulfur combine and half in consumer goods.

Credit payment will be made by Poland through shipments of sulfur amounting to about 25 percent of annual output. The Czechs will get about 30,000 tons this year, and in 1965 Poland will supply 120,000 tons of sulfur.

During the year 1961, Czechoslovakia will supply a large plant for sulfuric acid production at Machow.

Zinc Institute Will Meet In Chicago May 1 and 2

American Zinc Institute will hold its forty-third annual meeting at the Drake hotel in Chicago on Monday and Tuesday, May 1 and 2.

The first session will be held Monday morning in conjunction with the Galvanizers Committee of the steel industry (sponsored by AZI). The second session will be devoted to zinc industry matters.

The third session will be conducted jointly with the Lead Industries Association, Tuesday morning and will cover matters of interest to both the zinc and lead industries.

East Germany's Chemicals

—*Continued from page 7*

the country, whose output in that year amounted to 9.6 billion EG marks.

Of the 1,114 chemical operations, 163 were centrally run and 217 locally; 527 were still privately-owned; 205 were state-participated and two were cooperatively organized. Publicly-owned plants accounted for 8.3 billion EG marks out of the 9.6-billion total.

For one reason or another, the statistical bureau does not give 1960 output figures for nitrogen fertilizers. Output for 1959 of 329,000 tons nitrogen was 2.8 percent higher than the 1958 figure of 320,000 tons N.

In the seven-year plan, a figure of 342,000 tons N is planned. Phosphatic fertilizers will have to expand around 70 percent to reach their 1961 goal at the present rate.

Other production figures for East Germany include polyacrylonitrile, 1,200 metric tons in 1960, up 33 percent over the 900 metric tons in 1959, and polyamide fibers, 2,100 metric tons in 1960, up 16.7 percent over the 1,800 metric tons made in 1959.

Drug R&D Costs

—*Continued from page 7*

director said, "the data once again bear out the important role of the pharmaceutical industry as a major employer of research scientists and technical personnel."

About one in five industry personnel engaged in research hold doctoral degrees in science, medicine and related fields.

Among the 7,200 scientific personnel, 30 percent are in chemistry, with the biological sciences accounting for another 33 percent, pharmacy and pharmaceutical chemistry 9 percent and clinical sciences 7 percent.

The twenty-three largest companies (those with total sales over $30 million each) accounted for about 83 percent of the total research manpower, down 7 percent from 1959, the first year the survey was conducted. The decrease is due, in part, to first-time reporting by many smaller companies this year.

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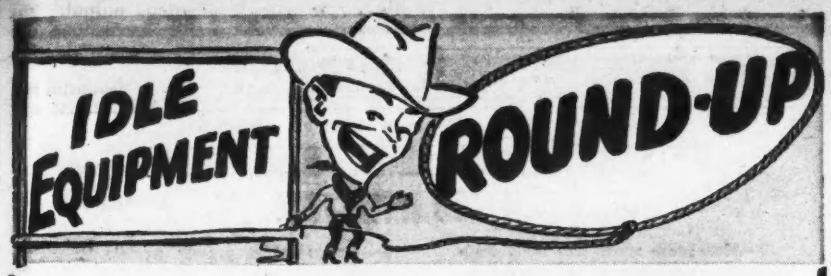

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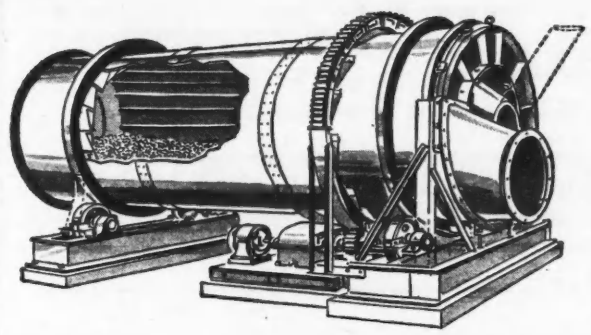

SAVE $7500 on FIRST'S FEATURE

Link Belt Roto Louvre Dryer Model 502-20 with accessories

First Come—First Served

DRYERS—EVAPORATORS

Stokes Vac. Shelf Dryer No. 138 D; (7) shelves 24" x 36".
Devine Dbl. Door No. 36 Shelf Dryer; (20) Shelves, 86" x 78".
Louisville MONEL Rotary Steam Tube Dryer; 54" x 35'.
2 S/S Acme Continuous Rot. Vacuum Dryers or Concentrators.
Double Drum Dryers of Standard Make; 28" x 60" to 42" x 120".
2 F. J. Stokes Vacuum Impregnating Systems; complete.
Bowen Stainless Steel Table Model Spray Dryer; 30" x 32".
Bartlett-Snow Jktd. Agtd. Batch Dryer; 6' Dia.; 49 cu. ft.
Zaremba Double Effect INCONEL Evaporator with Calandria.
Buflovak S/S Sanitary Thermo-Recompression Evaporator Complete.

MIXERS FOR EVERY PURPOSE

Brand NEW FALCON Ribbon Blenders; all sizes now in Stock; in Stainless or Mild Steel.
Baker Perkins Heavy Duty Jacketed Mixers; from 5 gal. to 300 gal.; 60 Units in Stock.
J. H. Day Mogul Mixer, 150 gal. Vac. Cover; 75 HP.
Day Cincinnatus 300 gal. STAINLESS Jktd. Mixer.

REACTORS and PRESSURE VESSELS

Struthers Wells 2000 Gal. Stainless Reactors; Jktd. and Agtd.
2 Stainless 400 Gal. Reactors Jktd. & Agtd. by Struthers Wells.
6 Door-Oliver 550 Gal. Stainless Thickeners or Reactors.
Pfaudler Glass Lined Reactors, Jacketed, Agitated from 50 Gal. to 500 Gal.

MILLS—GRINDERS—PULVERIZERS

Mikro Pulverizers up to No. 4; Mikro S/S Atomers No. 5 and No. 6.
Fitzpatrick Comminutating Machines, in Stainless; Models M, D and K.
Abbe Jacketed Steel Ball Mill; 42" x 32"; with charge of balls.
International Porcelain Lined Pebble Mills; 8' x 8'; 50 HP gearmotors.

CENTRIFUGES—CLARIFIERS

Stainless Suspended Type Centrifugals from 30" to 60".
2 Sharples Stainless Steel Model PN14 Super-D-Canters.
Sharples C27 Super-D-Hydrator in Type 316 Stainless; 40 HP.
2 Bird Continuous Horizontal Centrifuges; S/S & Monel 24".
2 Bird Rubber Covered Fume-Tight 48"; with Plows; 40 HP.

FILTERS and FILTER PRESSES

Oliver Pre-Coat; 3" x 2" Monel; 5'3" x 8' Stainless; 5'3" x 3' Steel.
Feinc Stainless Steel Rotary Vacuum Filter 3' x 1'.
4 Pressure Filters in 316 Stainless; 100 sq. ft.; 30" x 56".
Sparkler Filters Type 14 S 4 and Type 33 S 17.
Bowser Filter 200 G.H.P. complete with Pump and Motor.
Shriver and Sperry Plate & Frame Filter Presses; all sizes.

SPECIAL OFFERING DIRECT FROM LOCATION
CONTINUOUS FINE GRINDING EQUIPMENT
Being Removed as Operations Terminate

2—Allis Chalmers 7' x 22' (2 Compartment) Compeb Ball Mills with Meehanite Liners, driven by a magnetic-coupled 400 HP Motor.
1—Allis Chalmers 9½ x 810 Preliminator or Continuous Ball Mill; Meehanite Liners, driven by a magnetic-coupled 400 HP Motor.
3—Allis Chalmers 7' x 22' Continuous Ball Tube Mills, with Meehanite Liners, each driven by a magnetic-coupled 400 HP Motor, now operating in closed circuit with
3—Raymond 14 ft. Double Whizzer Mechanical Air Separators, New in 1950, each driven by 75 HP Motor. May be purchased separately. Send for Prices and Details.

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FMC

BRILL FOR VALUES

CENTRIFUGES

2—Sharples C-20 and C-27 Super-D-Hydrator, 316 S.S.
1—Bird 18"x28", Solid Bowl, Continuous, 304 S.S.
2—Bird 24" x 38" Solid Bowl Continuous 304 SS.
1—Bird 36" x 50" solid bowl continuous, 347 SS.
1—Bird 40" x 60" solid bowl continuous, 316 SS, UNUSED.
3—Sharples PY14, PN14 Super-D-Canters 316 S.S.
2—Fletcher 48" Suspended 316 S.S. Perforated Basket.
2—Sharples #16, 304 S.S., 3 HP motor.

REACTORS — EVAPS — CONDS — TANKS

1—100 gal. 304 S.S. jacketed agitated Reactor.
3—Pfaudler 200 gal. glass lined jacketed Kettles.
1—300 gal. Hastelloy B jacketed kettle.
1—650 gal. 304 S.S. Reactor with 100 sq. ft. Bayonet Heater.
1—550 sq. ft. Buflovak monel single effect Evaporator.
1—500 gal. S.S. Mixing Tank with nickel coils.
1—2,000 gal. horizontal 304 S.S. tank 5' x 12'.
1—10,000 gal. rubber lined Tank, 10' x 17'6".
1—2,500 gal. vertical 304 SS Tank, 8' x 7'.
6—7500, 6000 and 2000 gal. Rubber Lined Tanks.
1—12,000 gal. horiz. steel Pressure Tank, 7'6"x36', 200 psi.
2—Glascote 26 sq. ft. glass lined jacketed Condensers, UNUSED.
4—Stainless Heat Exchangers; 536, 370, 315, 250 sq. ft.
1—24" dia. x 35', 304 S.S. Bubble Cap Column.

FILTERS

1—#5 Sweetland Filter 304 S.S. 120 sq. ft.
1—Oliver 6' dia. Horizontal Filter, 316 S.S.
1—Oliver 5' x 6' Steel Rotary Vacuum Precoat Filter.
1—U.S. 200 sq. ft. 304 S.S. Auto-Jet Filter.
1—Hercules 400 sq. ft. 304 SS pressure Filter.
1—Oliver 5'3"x8' Steel Rotary Vacuum, vaportite housing.
1—Feinc 5'x6' Stainless Steel Rotary Vacuum Filter.
1—Feinc 3' x 3' Stainless Steel Rotary Vacuum Filter.
2—Feinc 3' x 1' and 3' x 3' Stainless Steel Rotating Vacuum Filters, string discharge.
2—#10 Sweetland Filters, 27 leaves, 4" centers, 250 sq. ft.

DRYERS

1—Buflovak Vacuum Shelf with 17—60" x 80" shelves.
2—Buflovak 42"x120", atmospheric double drum Dryers, complete.
1—Buflovak 32" x 90" Atmos. Twin Drum Dryer.
2—Devine 4'x9', single drum, atmospheric.
1—Buflovak 3'x10' Rotary Vacuum Dryer.
1—Baker Perkins 5'6"x6' Rotary Vacuum Dryer.
6—Louisville Rotary Steam Tube 5'x25', 6'x30', 6'x50'.
2—Louisville 8'x50' Stainless Steel lined Rotary Dryers.
9—Rotary Dryers 34"x30', 4'x40', 6'x50', 6'x60', 7'x80', 8'x87'.
1—Louisville 4-1/2' x 25' Inconel Rotary Dryer.
2—Link Belt, 7'5"x25', 6'4"x24", S.S. Louvre Dryers.
1—Stokes Model 38-A Tray Dryer with 16—36" x 36" SS shelves.
2—Atmos. Tray Dryers, 16 shelves, 40"x24".
1—P&S 6' wide Apron Conveyor Dryer 48' long.
2—Wyssmont Dryers, 304 SS, 6'2" and 9'6" dia.

MIXERS

1—Abbe 110 gal. 304 SS Jacketed Agitated Vacuum Dispersal Mixer.
2—Day Imperial 150 gal. jktd. double arm.
2—Baker Perkins 150 and 100 gal. jacketed double arm sigma blades.
1—Baker Perkins 50 gal. jacketed, double arm.
5—Day "Cincinnatus" double arm, 250 and 100 gal.
2—Steel jacketed Powder Mixers, 225 and 350 cu. ft.
1—Patterson 6' dia. Conical Blender 15 HP.
1—3' dia. Simpson Intensive Mixer.
1—2' dia. Simpson Intensive Mixer, 304 SS.
1—45" dia. Lancaster Mixer, 7-1/2 HP motor.
1—Patterson Kelly 150 cu. ft. Twin Shell Blender.
1—Sprout Waldron 1500# 304 SS Powder Mixer, 15 HP motor.

MISCELLANEOUS

3—Kinney Vacuum Pumps, 1000 cfm, 10 micron, 15 HP.
2—Hardinge 5' x 22" steel lined conical Ball Mills.
4—Mikro Pulverizers, #4TH, 1SH, 1SI and Bantam.
3—Abbe 2½' x 3' porcelain lined Pebble Mill XP motor.
1—Raymond 10" vert Mill, 10 HP.
1—No. 1 Ball & Jewell Rotary Cutter.
1—#18 Cumberland Rotary Cutter.
3—Swenson Walker Continuous Crystallizers, 24" x 30' sections.
2—#842 Rotex Sifters 60" x 84" double deck.
1—#24 Rotex Sifter, 20" x 64", Quadruple deck.

Partial List of Values — Send for Complete Circular

TEXAS OFFICE: 4101 San Jacinto Street, Houston 4, Texas — Tel.: JAckson 6-1351

BRILL EQUIPMENT COMPANY

35-61 JABEZ ST., NEWARK 5, N.J. Tel.: MArket 3-7420

PERRY FOR PROCESS EQUIPMENT

JUST PURCHASED

72—PFAUDLER 1400 GAL. BLUE G/L KETTLES, JKT. & AGIT., OPEN TOP.
18—PFAUDLER 1250 GAL. BLUE G/L REACTORS, CLOSED, JKT. & AGIT.
18—PFAUDLER 11,500 BLUE G/L HORIZ. TANKS, NICKEL COILS.
72—PFAUDLER 300 GAL. BLUE G/L JKT. KETTLES.
60—1350 GAL. T347 SS TANKS, ASME 60# WP.
9—13,500 GAL. T304SS VERTICAL TANKS.
5—2100 GAL. VERT. T304SS TANKS, DISHED, COILS, AGIT.

DRYERS

2—Louisville 6' x 30' rotary steam-tube dryers.
5—F. J. Stokes #138J-16 vac. shelf dryers, 195 sq. ft., 16 shelves, 40" x 44".
5—BUFLOVAK 42" X 120" DRUM DRYERS, ASME 160#.
1—American 42" x 120" dbl. Drum dryer, ASME, stainless.
1—Buflovak 42" x 90" dbl. drum dryer.
1—AMERICAN 36" X 84" DBL. DRUM DRYER, ASME, VACUUM.
1—BUFLOVAK 5' X 12' SINGLE DRUM DRYER, VACUUM.
1—Buflovak 32" x 52" dbl. drum dryer, ASME 100# WP.
1—Buflovak 6" x 8" dbl. drum dryer, vacuum.
2—Buflovak Vacuum shelf dryers: 110, 98 sq. ft.
2—DAVENPORT 8' X 60' ROTARY DRYERS, 7/16" WELDED.
1—Louisville 4'6" x 25' rot. steam-tube dryer, welded.
1—Hardinge 4' x 30' rot. steam-tube dryer.
1—Bartlett 3' x 15' rotary dryer, everdur shell.
1—BOWEN STAINLESS LAB. SPRAY DRYER.

FILTERS — CENTRIFUGALS

3—Sweetland #12 pressure-leaf filters.
5—SHRIVER 48" CAST IRON FILTER PRESSES, 1250 SQ. FT.
6—VALLEY 36" ALUMINUM FILTER PRESSES, 1000 SQ. FT.
1—Niagara #510-28 T316SS pressure filter.
1—Oliver 50 sq. ft. St. St. press.-leaf filter.
1—OLIVER 5'3" x 8' PRECOAT ROT. VACUUM FILTER—UNUSED.
2—Oliver 5'3" precoat T316 SS rot. vacuum filters.
10—DAVENPORT DEWATERING PRESSES; #1A, 2A, 3A.
25—SHARPLES #AS-16V SUPER CENTRIFUGALS, INCONEL, SLUDGE DISCH.
3—Sharples #C-20, C-27 Super-D-Hydrators, T316SS.
2—Sharples #16-P cent., T304SS, pressuretite.
1—Bird 24" x 38", Steel, cylindircal bowl.
1—Bird 32" x 50" cylindrical contin. cent., T316SS.
1—TOLHURST 48" SUSP. CENT., T304SS.
1—Bird 40" susp., steel Imperf. basket.
5—A.T.&M. 40" SUSP. CENT., T304SS.
2—A.T.&M. 32" Susp. Cent., T304SS.
1—A.T.&M. 12" Susp. Cent., T304SS.
2—DeLaval #BUH Stainless hermetic clarifiers.

KETTLES — REACTORS

1—1800 GAL. T316SS REACTOR, JKT. & AGIT., VACUUM.
3—1350 gal. T347SS Kettles, Jkt., paddle agit.
1—1000 gal. Dopp Kettle, cast iron, Jkt. & Agit.
2—600 gal., T304SS, Jkt., Agit., Coils.
2—500 gal. T304SS Reactors, Jkt. ASME, UNUSED.
6—465 GAL. T304LSS REACTORS, 150# IWP, 165# JKT.
2—125 gal. T316SS Kettles, shell Jkt.
2—100 gal. T304SS Autoclave, shell jkt.

MIXERS

50—BAKER-PERKINS #17, 200 GAL. SIGMA JKTD. MIXERS.
1—BAKER PERKINS #16-UUEM, 150 GAL. DISPERSION MIXER, 150 HP XP MOTOR, 125# JACKETED, VAULTED COVER.
1—BAKER PERKINS #15, 100 GAL. DISP. BLADES, JKT., T347SS.
1—BAKER-PERKINS #15-UUMM, 100 GAL. DISPERSION MIXER, 100 HP, ASME JACKET, CORED BLADES, COMPRESSION COVER, MOTORIZED TILT.
1—BAKER-PERKINS #15, 100 GAL. DISP. MIXER, T347SS, JKT.
1—J. H. Day #6 Cinc., 100 gal., sigma blades, Stainless.
2—Baker-Perkins #15, 100 gal., sigma jktd. mixer.
2—J. H. Day #5 Cinc., 75 gal., sigma blades.
1—J. H. Day #2 Cinc., 20 gal, jktd., sigma blades.
1—GEMCO 60 CU. FT. T304SS CONICAL BLENDER.

STAINLESS STEEL TANKS

1—5700 gal. horiz., T304 SS, 6'4" x 24', UNUSED.
1—3300 gal. vert., T304 SS, 6' x 14', dished heads.
1—3000 gal. vert., T304 SS, 6' x 15', coils, Vac.
3—2600 GAL. VERT., T316 SS, 7' x 8', DISHED HEADS, COILS.
2—2300 gal. vert., T316 SS, 7' x 8', coils, agit.
4—2100 GAL. VERT., T316 SS, 7' x 6'3", DISHED HEADS.
1—2100 gal. vert., T316 SS, 6' x 9'10", cone bottom.
12—1750 gal. vert., T304 SS hoppers, 235 cu. ft.
1—1600 gal horiz., T304 SS, 5' x 11', dished heads.
6—685 gal. vert., T316 SS, 3' x 13', coils.

WEEKLY FEATURE!
1—BAKER-PERKINS #16-UUEM, 150 GAL. DISPERSION-BLADE JKTD. MIXER, 150 HP XP DRIVE, VAULTED-COVER.

PERRY EQUIPMENT CORP.
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BUY with Confidence

OUTSTANDING MACHINERY-RIGHT NOW! WHEN YOU NEED IT!!

2—Morehouse speed line mills model B-1400 with 20 HP motors.
1—Blaw Knox 50 gallon type 347 stainless steel autoclave, 2000# internal, 350# jacket pressure.
2—Hersey steel hot air rotary dryers 1½' x 16', 3' x 30'.
1—Baker Perkins 50 gallon jacketed double arm mixer, 50 HP.
5—Lee 300 gallon stainless steel jacketed kettles.
3—Pfaudler 20 gallon glass lined jacketed and agitated reactors.
3—Stokes tablet presses models T, DS-3, RD-3.
2—Day Cincinnatus jacketed sigma bladed mixers, 150 and 200 gallons.
4—Stokes Micro-vac vacuum pumps 15, 19, 50, 115 CFM.
1—33 cu. ft. stainless steel ribbon blender.
1—75 gallon nickel clad jacketed and agitated reactor.
1—40" rubber lined suspended centrifuge.

Write or Phone Your Inquiries

chemical & process machinery corp.
52 Ninth St.
Brooklyn 15, N.Y.
HYacinth 9-7200

1—American 36" x 42" x 84" lg. jack. Autoclave, quick opening door each end.
1—#2 Sweetland Filter, 17 leaves 2" centers.
1—Abbe #8 Steel Ball Mill, 20 gal. cap.
1—Kinney DVD 8810 Vac. Pump, 110 c.f.m.
2—Jeffrey 24 x 18 Type A2 Hammer Mills.
1—Day 150 gal. Mogul jack. Mixer, tilt-type Z blades with 75 h.p. ex. pr. motor.

WHAT DO YOU HAVE FOR SALE?

BILL WOLF, Inc.
2708 CAROL ROAD UNION, N. J.
MUrdock 6-8883

WIRE US COLLECT!

PFAUDLER REACTOR
High Pressure
500 gallon Model R with type 53 glass lining. Heavy duty explosion proof drive. Turbine agitator and baffle. Excellent condition. Has been spark tested.
Immediate Delivery

ME MACHINERY AND EQUIPMENT CO.
123 Townsend St. - San Francisco 7, Calif.

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FOR SALE OR LEASE (ALL OR PART)

NORTH LITTLE ROCK, ARKANSAS

NITRIC ACID SYNTHESIS PLANT

90 ton/day design capacity — 135 ton/day peak capacity — stainless steel tanks, condensers, compressors, etc. — 3 identical lines.

NITRIC ACID CONCENTRATING PLANT

80 ton/day design capacity — 96 ton/day peak capacity — concentrators, ammonia tanks, stainless steel tanks, etc. — 8 identical lines.

SULPHURIC ACID RECOVERY & CONCENTRATING PLANT

Capacity 52,392 tons/year — 4 identical lines.

PICRIC ACID & AMMONIUM PICRATE PLANT

(9) identical units — 18 identical lines — 18,500 lb./day total capacity picric acid — 112,500 lb./day design, 180,000 lb./day peak total capacity ammonium picrate — Pfaudler glass-lined jacketed reactors, nitrators, sulphonators, stainless steel tanks, ammoniators — Nitric Acid Fume Recovery.

STEAM POWER PLANT

(5) Comb. Eng. Water Tube Boilers, gas or oil fired, each 4620 sq. ft. heating surface, 300 PSI, cap. 34,500 pounds each of saturated steam per hour.

800 ACRE DEVELOPED SITE — ALL UTILITIES AVAILABLE!

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EQUIPMENT
for CHEMICAL AND ALLIED INDUSTRIES

1—Baker Perkins, Size 16, Type UUEM, 150 gal. jacketed double arm, dispersion type mixer, complete with compression cover and 100 HP motor.

1—Niagara stainless steel filter, Model 510-28.

1—Oliver stainless steel rotary vacuum filter, 3' x 4'.

12—Sweetland #12 filters with 72 SS leaves.

1—Sturtevant #7 SS dustite rotary batch blender—NEW.

1—Banbury #1 mixer with 30 HP motor.

15—Robinson type 304 SS horizontal blenders, 255 cu. ft.

1—Robinson type 304 SS horizontal double ribbon blender, 125 cu. ft.

1—J. H. Day 5 gal. double arm sigma blade mixer, SS.

1—Stokes stainless steel granulating mixer, Model 21-J.

1—Stokes SS jacketed rotary vacuum dryer, 2' x 6'.

1—Pfaudler Series P, 30 gal. glass lined jacketed reactor, complete with agitator and drive.

1—Hersey stainless steel rotary dryer, 3' x 20'.

3—Buflovak stainless steel jacketed rotary vacuum dryers, 3' x 15' and 5' x 30'.

1—Buflovak 42" x 100" double drum dryer, complete.

1—American 42" x 120" double drum dryer, complete.

2—Pfaudler Series EM 300 gal. glass lined jacketed reactors.

2—Theo. Walters Hastelloy B 300 gal. jacketed reactors.

1—Pfaudler Series EL 750 gal. glass lined jacketed reactor.

2—Pfaudler Series R 5000 gal. glass lined jacketed reactors, complete with agitators and drives—NEW.

1—Alloy Fabricators 600 gal. steel jacketed autoclave with agitator and drive, 125 psi internal, 60 psi jacket.

1—Struthers Wells SS single effect evaporator 1150 sq. ft.

2—Process Equipment SS 10,000 gal. vertical storage tanks.

1—Sprout Waldron pelletizer, Type 501 FF.

1—Williams "Comet" 4 roll mill, complete, NEW.

1—Raymond 2 roll high side mill.

1—Vulcan stainless steel bubble cap column, 4' x 25 plates.

1—Badger type 316 SS bubble cap column, 36" dia. x 8 trays.

1—Griscom Russell SS heat exchanger, 900 sq. ft.

1—Downington SS heat exchanger, 750 sq. ft.

3—Badger SS heat Exchangers, 500 sq. ft. and 600 sq. ft.

20—Davis Engineering SS heat exchangers, 102, 119, 136, 166 sq. ft. NEW.

2—Davis Engineering, Carpenter 20, heat exchangers, 120 sq. ft.

R. GELB & SONS, INC.
UNION, NEW JERSEY Est. 1886 MUrdock 6-4900

CHEMICAL PLANT SALE
NIAGARA FALLS, N.Y.

Stainl. Tanks hor. & vert. 150 to 11000 gal.
Aluminum Tanks 7000 to 12000 gal.
Stainless Bubble Cap Columns 36"x17'; 48"x40'; 54"x30'; 72"x30'; 78"x18'.
Stainless Packed Columns, 12"x20'; 36"x21'.
Pfaudler 500 gal. ELL Reactor Jkt. & Agit.
Stainless Condensers—68 to 1000 sq. ft.
B&P 300 gal. Stainless 18DIM Sigma Mixer.
Dopp 1000; 1700 gal. Reactors Jkt., Agit.
435 sq. ft. S.S. Single Effect Evaporator.
Goslin Birm. 36"x24" S.S. Rot. Vac. Filter.
6"x8" Buflovak Dbl. Drum Rot. Vac. Dryer.
Sharples C27 Super-D-Hydrator 316 S.S.
Rochester 30" S.S. Susp. Centrifuges.
Buflovak 6' Crystallizers Atmos. & Vac.
Swenson 24"x20' Jktd. SS316 Crystallizer.
Nash #9, #4, K5 Vacuum Pumps.
Squire 500 sq. ft. Tray/Truck Dryer.
Copper Bubble Cap Columns 2' to 6' dia.
Copper Condensers—82 to 2950 sq. ft.
Copper Tanks 500 to 3500 gal. w/coils.
Steel Tanks 250 to 22000 gal.
Centrifugal Pumps Stainless 1"; 1½"; 2".
Norwalk 5 Stage Compressor 15000 PSI.
Roots Connersv'e Blowers 18"x18"; 20"x20".
Stainless Pipe, Valves, Tubing ½" to 8".

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5 - SWEETLAND FILTERS
Late Style
#12's having 72 leaves on 2" centers. Vertical sight glasses, motor driven sluicing. Special deep bottoms. Hydraulic Closing.
Perfect Condition
Wire or phone collect—GA 1-1380
ME MACHINERY AND EQUIPMENT CO.
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EQUIPONOMICS

BIRD Continuous Centrifuges 18" x 28" 316 S.S. (1952) 15 H.P. Washing

OLIVER VACUUM FILTER—S.S 316. 3'x6'
COLUMN S.S. 4' D x 65' high, 55 plates.
TANKS S.S. 304, 2500 gal. 7' x 8' new.
KNEADER MASTER—Paterson 2½ gal.
CENTRIFUGE—Tolhurst 20" rubber lined.
COLLOID MILL—Premier UB5 S.S. 5 H.P.
LOUISVILLE ROTARY DRYER 1' x 8'—S.S.
CENTRIFUGE—ATM Susp. 48" 316 S.S.
ROLLER MILLS—Ross 14" x 32" Hi Speed Ross 4½" x 10".

PROCESS PLANTS SERVICE, INC.
287 Central Ave., Clark, N.J. Tel. FUlton 1-1183-4

FILTER—NEW—Stainless, Niagara 48" vertical 512 sq. ft. w/stainless slurry tank.

GRANULATOR — NEW — Stainless Stokes oscillating w/motor.

VOTATOR—NEW—Stainless, lab. model 4 speed.

TABLET PRESSES—Stokes R, B2, DS 3, RD 4 all w/varidrives.

FEEDER/SCREENER — S/S Syntron 24" x72" tot. encl. w/rectifier.

MIXERS — Double arm, unused S/S 3 qt. Read—11 gal. Bramley—25 gal. Fishtail (10 HP)—110 gal. Day Imperial.

LAWLER COMPANY
LAWLER PLACE METUCHEN, N.J.
LIBERTY 9-0245

CHOICE EQUIPMENT

2—Sparkler 14" & 8" Stainless Steel Filters.
5—Hercules 16" & 9" Square Stainless Steel Filters.
1—Homo Mixer #1H—1 H.P. XP Motor.
2—Lightnin Agitators 7½ H.P. 1200 rpm.
1—Charlotte ND20—S.S. Colloid Mill XP Motor—600 gph.
2—Worthite S.S. Pumps—8" x 6"; 3" x 2".
1—Stainless Steel 30 gal. Autoclave 1000 psi w Jacket & Agitator w XP Motor.
1—Cyclotherm Package Boiler 250 psi, 600# hr.—20 H.P.
4—Stainless Vacuum Receivers 50 to 100 gals. 250 psi.
1—Horiz. Closed Spiral Mixer, 3' x 12', Jack.
1—Day Stainless Steel Blender 2000#.
1—Patterson 5' x 6' Jack. Ball Mill, 25 H.P.
1—N. J. Model 86 MX Pony Labeler.
1—Resina Automatic Screw Capper, Model Spec. 60 pm.—Yr. 1954.
5—Rotex Screens 20" x 38" to 60" x 84".
1—Kent High Speed 3 Roll Mill 13" x 43".
1—Devine Vac. Shelf Dryer, 10 shelves, 40" x 43".
1—Pfaudler 800 gal. G.L. Jack. Tank w/Ag.
2—Day 40 gallon Pony Mixers, M.D.
1—Roto Louvre Dryer—705-20—S.S.

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91-93 New Jersey R.R. Ave., Newark 5, N. J.
Market 2-3103

DAY HY-R SPEED MILL
HERSEY 5' x 26'
ROTARY STAINLESS DRYER

CENTRIFUGALS—12" 30" 40" & 48". Amer. Tool 18' Stainless.
CENTRIFUGES—Sharples #3 & 6 S.S.
DRYERS—Hersey 5' x 26' Rotary Stainless
Buffalo 32" x 90" Double Drum Dryer
Buffalo Vac. Drum Dryer 24" x 20".
Despatch Ovens Elec. Heated.
3—Devine & Stokes Vac. Shelf Dryers.
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Detergent: Good to Eat?

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found in all other plants that have been tested to date.

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Sen. Kefauver's Bitter Medicine

—Continued from page 3

as "reasonable and fair," adding that it seeks to bring about lower prices by replacing the "restrictions of monopoly with the dynamics of competition."

His efforts appear to have the endorsement of President Kennedy, although Presidential support for his methods is in doubt.

The President had his attention called to the Kefauver-Celler bill at his press conference last week, when he was asked if he favored amending the patent and antitrust laws to bring down the prices of medicine or whether he could do anything executively.

His reply was that he thought it might be possible to take some executive action without congress, and he was sure that the Federal Trade Commission, with its new chairman—Paul Rand Dixon, who was the Kefauver committee counsel during the drug investigations—will be concerning itself with this problem.

Mr. Kennedy added that he would be looking with interest on Mr. Kefauver's efforts in this area because drug prices are high.

Objectives of Kefauver-Celler Bill

The Kefauver-Celler bill would:

- Make it unlawful under the antitrust laws for large drug houses to agree upon which company will obtain a patent, to agree which companies shall be awarded licenses in the event that a patent is issued, and to make other restrictive agreements.
- Require compulsory licensing of qualified applicants, three years after the issuance of a product patent for a prescription drug, with royalties not to exceed 8 percent of the selling price.
- Authorize the Food & Drug Administration to pass on the efficacy as well as the safety of drugs.
- See to it that physicians are provided with clearer, better and additional information on the bad as well as the good features of drugs.
- Require fuller and more comprehensive inspection of drug manufacturing plants.
- Provide for licensing of drug manufacturing companies by the Department of Health, Education & Welfare.
- Empower FDA to establish the official or generic names for drugs.

In defense of compulsory licensing for the drug industry, Sen. Kefauver charged that free competition has been hampered by patent monopoly control of prescription sales.

He said the United States stands alone among the industrialized nations of the world in granting product licenses on drugs, with no provision for compulsory licensing or any other protection to the pubic interest.

Drug manufacturers would be charged with a violation of the Sherman antitrust laws under the bill if they enter into any contract or combination whereby any party thereto undertakes, first, to withdraw any patent application; second, concede priority of invention to another patent applicant in connection with any agreement to split royalties or, third, refrain from granting any patent license for a drug.

The genesis for this provision rests largely in the patent arrangements in the antibiotics industry, which were investigated by the Federal Trade Commission in its economic study of the antibiotics industry in 1958.

Out of this grew the present complaint now pending before the commission for decision involving licensing of tetracycline patents. The Kefauver committee delved deeply into these and other patent arrangements during its hearings.

Mr. Kefauver's bill also proposes to change the patentability of two kinds of prescription drugs—first, a drug which is a combination of two or more drugs already in existence, whether patented or unpatented; and second, any drug which is merely a molecular or other modification of an existing drug.

The bill says that such a modification of a drug, or a combination of drugs, is not patentable unless the Secretary of Health, Education & Welfare has determined that the therapeutic effect of the modified drug or combination of drugs is significantly greater than the therapeutic effect of the drug before modification, or the drugs in combination when taken separately.

Kefauver on Combination Drugs

"Unless there is such a greater therapeutic effect, the public gains nothing from having this combination modification placed on the market," Sen. Kefauver said.

"Unless these conditions are met, no new drug is discovered, and the patent monopoly should not be granted."

Another change in the patent laws affecting drugs proposed by the bill has to do with the date when the patent rights shall begin to run. The bill ties the running of the patent monopoly to the date when a new drug application becomes effective.

As to drugs which do not require the filing of new drug applications, the bill fixes the date of the filing of the patent application as the effective date of the patent.

The compulsory patent licensing feature of the bill is found in section 3 (d). It states that a patentee may exclude others from making, using or selling the patented drug only for a period of three years from the date of filing the patent application.

For an additional period of fourteen years, the patentee must grant unrestricted licenses to any qualified applicant to make, use or sell the drug.

A "qualified" applicant by the terms of the bill would be any manufacturer who holds an unsuspended or unrevoked license issued by the HEW Secretary.

Promotional Gains Wiped Out

The changes proposed by Mr. Kefauver in the food, drug and cosmetic law have as their objective the wiping out of the advantages many drug companies have gained through the years from their promotional work and trade name advertising.

Mr. Kefauver believes that it should be possible for a doctor to write out his prescription without the use of trade names, with full knowledge that it will be filled by a drug no better or less potent than any other drug of its kind.

To reach this objective, the first would require that no one would be permitted to produce a prescription drug without a license from HEW.

He then would amend the labeling provisions of the law so that the pharmacist, doctor and public would know that the drug had been made by a duly-approved manufacturer; so that the doctor would know the family to which the drug belongs by showing the official name of the product, and the date after which the drug cannot be expected to produce its intended results.

The bill also deals with the advertising of drugs by requiring that all advertisements and other printed material issued by the producer include the official name

—Continued on page 67

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DALLAS (DAvis 1-0898)—John Printup & Associates, 2607 Milmar Drive, Dallas 28, Tex.
LOS ANGELES (DUnkirk 7-4388)— Robert W. Walker Company, 730 South Western Avenue, Los Angeles 5, Calif.
SAN FRANCISCO (SUtter 1-5568) — Robert W. Walker Company, 57 Post Street, San Francisco

Trade Names Chemicals & Specialties

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celerator 30." The product meets all requirements of Military Specification MIL-A-397B as a Type 2, Class 2, Grade C adhesive product for marine grade lamination of white oak.

"Resin 736" is a resorcinol-type adhesive specially formulated to produce extremely durable, waterproof bonds. When used at room temperatures, with accelerator, on low or medium density woods, the product complies with MIL-A-397A as a Type 1, Class 1, Condition C.

At intermediate temperatures on high density woods, the material meets specifications MIL-A-397A, Type 2, Class 1, Condition C, as an adhesive product for general purpose gluing.

Others in the Field

Among other producers in the field are Reichhold Chemicals Inc., with "Plyophen 6000," an unmodified resorcinol-formaldehyde resin containing 60 percent solids in alcohol and water. The product makes use of Reichhold "Catalyst SW-1684A" which is a powder consisting of a formaldehyde-containing substance and an inert organic filler.

RCI also markets "Plyophen 1880," a phenol-resorcinol formaldehyde as a more economical resorcinol-containing adhesive than "Plyophen 6000."

The company's chief production facilities for the materials are on the west coast, but resins plants at other locations produce material as needed. RCI says main use is in special applications where high-temperature curing phenolics can't be used.

Monsanto Chemical Company manufactures and markets resorcinol and phenol-modified resorcinol resins on the west coast through its adhesives department located at Seattle, Wash. "PRF" adhesives are used mainly for marine and exterior grade plywood, Monsanto reports.

Rohm & Haas Company has on the market "Tego," a resorcinol adhesive in dry film form. The product is reported useful where a small consumer might not care to make an investment in a glue spreader or mixer.

Trade Name Briefs

ADHESIVES: National Starch & Chemical Corporation is offering "Jet Patch," a special window envelope adhesive for high speed equipment.

National points out that ordinarily when a producer runs window envelopes, equipment has to be slowed down to the speed the adhesive will allow. Using the new product "the manufacturer can increase production by running at top speeds," according to R. A. Wolfe, product manager for National's adhesive division.

SYNTHETIC FIBERS: What is reported to be the first patent ever issued on pile fabrics in which the fiber intrinsically hides soil has been granted to Union Carbide Corporation, makers of "Dynel" modacrylic fibers.

According to Carbide, the development makes possible more widespread use of the fiber in broadloom carpeting for commercial and residential use.

SILICONES: Dow Corning Corporation is making a new silicone additive designed to aid in the production of improved polyurethane foams. Trade-named "Dow Corning 113," the new product is a silicone-glycol copolymer which promotes formation of uniform, fine-celled, rigid polyurethane foam, according to the company.

SOFTENERS: "Arquad 2HT" is being produced by Armour Industrial Chemical Company for use in formulating laundry rinses and industrial softeners. Termed a "whiter quaternary ammonium chloride," the new product may be used to fluff fabrics, speed drying, ease ironing, reduce wrinkling, and eliminate uncomfortable garment cling, the company says.

PHOSPHATIDES: Chemury Division of Central Soya Company has developed a new product for control of the ratio of polyunsaturated to saturated fatty acids in the diet.

According to Dr. James R. Wilson, the company's medical consultant, the new product, "Soy Phosphatide," is expected to be "of real help to those in the medical profession who are concerned with regulating fat components in the diet of patients with vascular lesions."

WAXES: Bareco Wax Company has developed a new microcrystalline synthetic wax for use in carbon paper inks. Trade-named "Petrolite WB-7," the new product can be used to formulate inks free of odor commonly associated with oxidized petroleum waxes, the company reports.

OPD Reports From Europe

British Chemical Firms Protect Trade

—*Continued from page 5*

inson & Capel-Cure. Ted Leather, another MP, is affiliated with this latter company.

And the list could be extended to cover most of the companies in London specializing in the intricacies of East-West trade. The politics isn't entirely window-dressing, obviously, since such trade is done with the state organiaztions of the Communist countries.

Overall, the 225 British companies at Leipzig were second to the West Germans (1,200 exhibitors), putting the French in third place for the first time in recent years.

The Leipzig Fair was the battleground this year for a keen trade contest, for the East German state agencies are working to reduce their independence on West German industry.

The British and French have been fighting to pick up as much of this East German trade as possible, and this intrusion has been bitterly resented by many West German firms

In addition to East German contracts, Leipzig was the scene of negotiations between Western companies and other Communist nations. Wycon Services—a joint Fisons, Ltd., and Constructors-John Brown venture—signed a $5.6 million contract with Russian Techmashimport for two chemical plants.

Russian Techmashimport Deal

One costing $2.1 million will produce 12,000 tons annually of dimethyly ethylene urea used in making drip-dry fabrics and the other, a $3.5 million plant, will turn out weed-killers based on Fisons know-how.

Petrocarbon Developments will supply Rumania with a $2.2 million polystyrene plant based on its suspension polymerization process. Production is expected to start the end of next year.

A similar styrene plant was completed by Petrocarbon for Poland last year and with Humphreys & Glasgow, an engineering firm, it will design and build a plant for ethylene and aromatics in East Germany.

Humphreys & Glasgow, which recently signed a chemical process and technical exchange agreement with East Germany, reports that it got inquiries at Leipzig for about $70 million worth of business. A fair proportion of these inquiries are expected to turn into contracts by Humphreys & Glasgow. The UK firm obtained access to "some sixty processes" in the East German pact.

In a straight product deal, Imperial Chemical Industries, Ltd., at Leipzig sold the East German state trading unit, Dia Chemie, $420,000 of dyestuffs, pigments, rubber chemicals and textile chemicals. ICI notes that this represents a 30 percent gain on its 1960 business with East Germany.

Chemical plant engineering companies and firms with processes to sell in Europe are boosting their sales effort in Poland. That satellite nation has announced a plan to spend about $10 billion developing a modern chemical industry between 1961 and 1965.

Since Russia cannot supply her own needs for chemical plants, Western companies hope to capture a big part of whatever Polish business emerges from the plan.

Recent buying teams from the Soviet Union in Europe have emphasized that the chemical and paper industries there are being expanded vigorously. In addition to equipment purchases in Europe, some recent Soviet chemical plant equipment has been bought in Japan.

Textile machinery for processing natural and synthetic fibers is also short in Russia and Western experts calculate the Soviets can supply only about 60 percent of their needs for such equipment.

Sen. Kefauver's Medicine

—*Continued from page 66*

of the drug, a warning approved by the HEW Secretary as to any dangerous or harmful effect and a full and correct statement of the drug's efficacy.

No new drug would be permitted to be marketed until it had been proved to the satisfaction of HEW that it is efficacious for the use intended, as well as safe.

Also, the certification system now in use for a limited number of antibiotics would be extended to cover all antibiotics now on the market and those developed later.

The factory inspection provisions are in line with what the FDA has sought in legislation it sponsored last session. Under the Kefauver bill, FDA inspection would include commercial testing laboratories, plant sanitation, raw materials and analytical reports on such materials, formula cards, actual manufacturing working sheets, batch records, weighing and measuring controls, packaging technics and sterility controls.

Also covered are potency controls, coding systems, facilities for maintaining a separate identity for each drug, cleaning of equipment between batches, quarantine of drugs, until after clearance with the control laboratory, qualifications of the technical staffs and the complaint file of the licensee or applicant for license.

OPD Bookshelf

—*Continued from page 37*

continents. All facts were re-checked not more than eighteen months prior to the book's publication, so the book is up-to-date. It is also critical.

For example, here is the beginning of the monograph on lilac:

"Next to rose and jasmin, the lilac fragrance is probably the perfume which is most frequently 'created' by the perfumer from synthetic and natural raw materials. Up to now, the essential oil-producing houses have been unable to offer a true, natural oil, derived from lilac flowers and representing these flowers satisfactorily in odor effect. Only a few houses in Grasse, France, offer materials which are said to be derived exclusively from lilac flowers. But the author has still to meet one product which strikes him immediately as a true-to-nature, rich and powerful lilac absolute or lilac oil. The so-called Butoflor Lilas is one of the closest approaches and even that material is inferior to certain entirely artificial bases."

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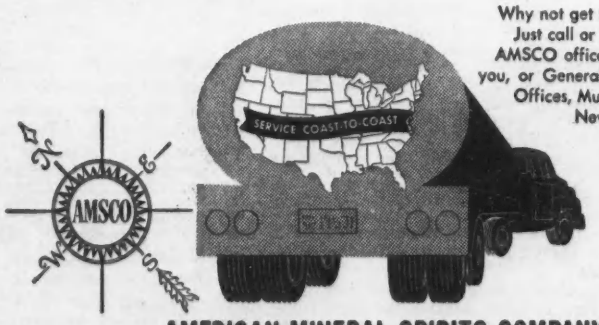

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